

*Lepidoptera collected by the British Ornithologists' Union and Wollaston Expeditions in the Snow Mountains, Southern Dutch New Guinea. By the HON. WALTER ROTHSCHILD, Ph.D., F.R.S.*

THE whole of the Lepidoptera on both expeditions were collected by, or under the immediate supervision of Dr. Wollaston, but unfortunately all the *Rhopalocera* of the expedition led by Mr. Goodfellow were destroyed, and only 614 specimens of *Heterocera* were saved; of these I have described in the Appendix some new species; the remainder I was unable to enumerate, as they had been put away in the study collection of the British Museum and the descriptions not yet published.

The Lepidoptera of the Wollaston Expedition consist of 811 species, 210 *Rhopalocera* and *Grypocera* and 601 *Heterocera*; of which 40 species and 16 subspecies of *Rhopalocera* and *Grypocera*, and 212 species and 20 subspecies of *Heterocera* are new to science. The collection brought together by the Wollaston Expedition was made on the Utakwa or Oetakwa River, which rises in the Snow Mountains, and on Carstensz Peak, to within 500 feet of the summit of which, the party reached.

The following is a list of the stations, with necessary details:

(1) *Base Camp*.—Sea level, reached September 18th, 1912, was situated 20 miles from mouth of river.

(2) *Canoe Camp*.—Reached October 12th; this was the farthest place possible to reach by water.

(3) *Observation Camp*.—2500 feet in foot-hills, 3 days' march from Canoe Camp. The localities from here up to Camp 9, 6000 feet, are included in those given under each species either under UTAKWA RIVER or SNOW MOUNTAINS, these being quoted from Mr. Wollaston's labels.

(4) *Carstensz Peak*.—Under this heading is included the portion of the collection made above 5000 feet.

The various localities quoted for the specimens got on the Goodfellow Expedition are mostly small and large rivers flowing from the Snow Mountains.

In the body of the article I have only mentioned the names of the stations, altitudes and dates.

I have to express my great thanks to Mr. Richard South for identifying the *Lycaenidae* and *Hesperiidae* for me; to Mr. Louis B. Prout for identifying the *Geometridae* other than certain *Oenochrominae*, the genus *Dysphania*, and the *Milionia* section of the *Boarmianae*; and to Mr. J. H. Durrant for writing the section on the *Microlepidoptera*. I also have to thank Sir George Hampson for much and valuable general assistance.

## RHOPALOCERA

There are 210 species of Rhopalocera in the collection, of which 40 species and 16 subspecies are new.

## PAPILIONIDAE

There are 42 species of this family, of which 4 species and 3 subspecies are new.

## PAPILIONINAE

In the *Papilioninae* there is nothing very noteworthy to record. There are 13 species, of which only 2 call for special reference. *Papilio weiskei weiskei*, originally discovered by Weiske on the Aroa River, is now known to occur all over New Guinea, and *P. tithonus tithonus*, which certainly differs from Kapaur specimens; but a single ♀ is insufficient to separate the Snow Mountain insect as a distinct race.

## 1. PAPILIO TITHONUS TITHONUS (De Haan).

*Ornithoptera tithonus* De Haan, *Verh. Nat. Gesch. Ned. overz. bez.*, p. 18, t. 1, f. 1 (1840) (New Guinea).

1 ♀ Base Camp, Nov. 1912.

## 2. PAPILIO POLYDORUS ASINUS Fruhst.

*Papilio polydorus asinus* Fruhstorfer, *Ent. Medd.*, p. 305 (1904) (Waigiu).

3 ♀♀ Base Camp, Dec. 1912; 1 ♂ 4 ♀♀ Utakwa River, 3000 ft., Jan. 1913.

## 3. PAPILIO EUCHENOR EUCHENOR Guér.

*Papilio euchenor* Guérin, *Voy. Coquille*, t. 13, f. 3 (1829) (New Guinea).

7 ♂♂ Base Camp, Utakwa River, sea level, Nov. — Dec. 1912.

## 4. PAPILIO AMBRAX Boisd.

*Papilio ambrax* Boisduval, *Voy. Astrolabe*, Ent., p. 40, No. 5 (1832) (New Guinea).

Of the 16 ♂♂, 3 are ab. *ambracius* Wall., having the apical white patch on forewing. Of the 5 ♀♀, 4 are ab. *ambracius*, having the white subternal patch on the forewing; while the 5th is intermediate between *ambracius* and true *ambrax*.

11 ♂♂ 3 ♀♀ Base Camp, Nov.—Dec. 1912; 3 ♂♂ 1 ♀ Canoe Camp, Nov. 1912; 2 ♂♂ 1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

## 5. PAPILIO AEGEUS ORMENUS Guér.

*Papilio ormenus* Guérin, *Voy. Coquille*, t. 11, f. 3 (1829) (New Guinea).

The 4 ♂♂ are typical *ormenus*, the ♀ is ♀ f. *onesimus* Hew.

3 ♂♂ 1 ♀, Base Camp, Nov. 1912; 1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.



6. *PAPILIO ULYSSES AUTOLYCUS* Feld.

*Papilio autolycus* Felder, *Verh. z. b. Ges. Wien*, p. 321, No. 428 (1861) (New Guinea) *nom. nud.* Id., *Reise Novara II. Lep.*, p. 114, No. 86 (1865) (New Guinea).

4 ♂♂ Base Camp, Nov.—Dec. 1912.

7. *PAPILIO ARISTEUS PARMATUS* Gray.

*Papilio parmatum* Gray, *Cat. Lep. Ins. B. M.*, i. p. 30, No. 141, t. 3, f. 2 (1852) (Australia).

5 ♂♂ Base Camp, Utaikwa River, sea level, Nov.—Dec. 1912; 3 ♂♂ Canoe Camp, Utaikwa River, Nov. 1912.

8. *PAPILIO THULE* Wall.

*Papilio thule* Wallace, *Tr. Linn. Soc. Lond.*, xxv. p. 63, n. 98, t. 7, f. 1 (♂; right side of fig.) (1865) (New Guinea).

1 ♂ Base Camp, March 1913.

9. *PAPILIO WEISKEI WEISKEI* Ribbe.

*Papilio weiskei* Ribbe, *Insekten-Börse*, p. 308 (1900) (Aroa River).

This grand *Papilio* is dimorphic in both sexes. In the ♂ sex specimens occur in which the normal magenta patches on the forewings are blue like the spots on the hindwing. The first ♀ ever captured was quite unlike the ♂, having all the markings above, except the postcellular spots on forewing and cellular and basal patches on hindwing, which are apple-green always, Nile blue-green. Afterwards both north and south of the Mountain Range ♀♀ have been obtained exactly similar to normal ♂♂. All 4 ♂♂ sent by Mr. Wollaston are normal ♂♂ of typical *weiskei*; but I have received this year two distinct local races from Ceram and Goodenough Island respectively which are described below.

1 ♂ Utaikwa River, 2500–3000 ft., Dec. 1912; 1 ♂ Snow Mountains, 4000–6000 ft., Jan.—Feb. 1913; 2 ♂♂ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

*Papilio weiskei goodenovii* subsp. nov.

♂. Similar to the green ♀ of *w. weiskei* but larger, all spots on forewing above larger, and the submarginal row of spots more strongly marked. On the hindwing above the two spots on each side of vein 2 are double the size of those in *w. weiskei*, and there are two smaller spots on each side of vein 4. Below it differs by having a blue band below the basal half of median vein in the forewings, and in the green submarginal patches of the hindwings being present like above.

Expanse 160 mm. Length of forewing 46 mm.

*Hab.* Goodenough Island, D'Entrecasteaux Islands, 2500–4000 ft., May 1913 (A. S. Meek coll.), 1 ♂.

*Papilio weiskei stresemanni* subsp. nov.

♂. Differs from *w. weiskei* in the hindwings being much wider and more rounded. Above it differs from the green ♀ of *w. weiskei* and the ♂ *w. goodenovii* on the forewings by the Nile-green patches being sky-blue, and the one below vein 1 is also shorter. On the hindwing above, the basal green spot and the basal portion of cell and the patch above veins 1 and 4 are densely clothed with long white hairs not present in the 2 other forms; it also differs in having a complete row of 5 medium-sized pale blue submarginal spots. The green basal area of cell is much larger, and at its apical end, together with the 2 spots above veins 1 and 4, passes into sky-blue. Below on forewing the patches, which are white in *w. weiskei*, are pale blue, and on hindwing the green patch below cell passes into blue.

Expanse 91 mm. Length of forewing 43 mm.

*Hab.* Mansuela, Central Ceram, 650 m., 1912 (E. Stresemann).

10. *PAPILIO SARPEDON CHOREDON* Feld.

*Papilio choredon* Felder, *Verh. z. b. Ges. Wien*, p. 305, n. 218, and p. 350, n. 123 (1864) (Australia, New Guinea, Waigiu, Woodlark).

8 ♂♂ Base Camp, Nov. 1912; 1 ♂ Canoe Camp, Nov. 1912; 4 ♂♂ Utakwa River, 2500–3000 ft., Feb. 1913.

11. *PAPILIO EURYPYLUS LYCAONIDES* Rothschild.

*Papilio eurypylus lycaonides* Rothschild, *Nov. Zool.*, vol. ii. p. 430 (1895) (Humboldt Bay).

1 ♂ Canoe Camp, Nov. 1912; 3 ♂♂ Utakwa River, 4000–6000 ft., Dec. 1912–Jan. 1913.

12. *PAPILIO AGAMEMNON LIGATUS* Rothschild.

*Papilio agamemnon ligatus* Rothschild, *Nov. Zool.*, ii. p. 451 (1895) (New Guinea).

2 ♀♀ Base Camp, Nov. 1912; 2 ♀♀ Canoe Camp, Nov.—Dec. 1912; 1 ♀, 2 ♂♂ Utakwa River, 2500–3000 ft., Feb. 1913.

13. *PAPILIO MACFARLANII MACFARLANII* Butl.

*Papilio macfarlanii* Butler, *P.Z.S.*, p. 471, n. 30 (1877) (New Guinea).

1 ♀ Base Camp, Jan. 1913.

## PIERINAE

The 29 species obtained by Mr. Wollaston's party consist for the major part of *Delias*—viz. 18 species. This was to be expected, as Papua is the home "par excellence" of the genus *Delias*. But considering the number of new *Delias* obtained by Mr. A. S. Meek on the Utakwa River and on Mt. Goliath, it was an immense surprise to find

6 new forms, 3 of which are unlike anything known hitherto. The remaining 11 pierine species are widely distributed Papuan forms.

#### 14. *DELIAS INFERNA IRMA* Fruhst.

*Delias aruna irma* Fruhstorfer, *Soc. Ent.* xxi. p. 179 (1907) (British New Guinea).

Herr Fruhstorfer has united all the orange *Delias* with dark undersides from the Moluccan and Papuan regions as subspecies of *Delias aruna* Boisd. I prefer to treat them as two species, *D. aruna* with 2 subspecies and *D. inferna* also with 2 subspecies. My reason for doing so is that, although in the Geelvink Bay and Roon Island specimens the black base appears to run into the crimson patch on the underside of the hindwings, somewhat obscuring it, these specimens cannot be called intermediates; and so far, although I have examined several hundred specimens, I have never yet seen a connecting link between *D. aruna* and *D. inferna* in either sex. In the above-quoted article, Herr Fruhstorfer distinguishes 5 subspecies of this group with red discal patches on the underside, but I can only distinguish 2: *D. aruna aruna* with the discal red patch not suffused with black, and *D. aruna rona* with the patch SUFFUSED with black; all the characters given for the other races break down when a large series is examined. I agree with Herr Fruhstorfer, however, in separating the 2 subspecies of *D. inferna*. *D. inferna irma* from the southern and central parts of New Guinea is usually much larger, and always has the black edging to the hindwing broader than in *D. inferna inferna*, which is confined to the Cape York Peninsula of Queensland. It is quite possible that inland from the Huon Gulf intermediate forms exist linking up *D. inferna* with *D. aruna*, but until the discovery of these links it is better to treat them as two species.

7 ♂♂ Base Camp, Nov.—Dec. 1912; 3 ♂♂ Canoe Camp, Dec. 1912; 1 ♂ Utaqua River, 2500–3000 ft., Jan. 1913.

#### 15. *DELIAS MYSTIC LARA* (Boisd.)

*Pieris lara* Boisduval, *Sp. Gén.* i. p. 461 (1836) (New Guinea).

3 ♂♂ Base Camp, Jan. 1913; 1 ♀ Utaqua River, 2500–3000 ft., Feb. 1913; 1 ♂ Canoe Camp, Nov. 1912.

#### 16. *DELIAS ZARATE FLAVIDIOR* subsp. nov.

Herr Fruhstorfer places *zarate* Grose Smith as a subspecies of *gabia*, but the occurrence of this form of *zarate* together with typical *gabia* in one place proves *zarate* to be a distinct species.

♂. Differs from *zarate zarate* in being smaller and the black markings above much reduced, the hindwing merely being edged with black; below the hindwing is sulphur yellow, not deep yellow, and has a much narrower unspotted, dark margin.

1 ♂ Utaqua River, 4000–6000 ft., Dec. 1912—Jan. 1913.

17. *DELIAS GABIA* Boisd.

*Delias gabia* Boisduval, *Voy. Astrolabe, Ent.*, p. 48 (1832) (Offak, Waigiou).

1 ♂ Base Camp, Nov. 1912; 1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

18. *DELIAS DICE FULVOFLAVA* subsp. nov.

♂. UPPERSIDE white, costa and apical  $\frac{1}{5}$  obliquely including termen of forewing black, 2 somewhat obsolete white subapical spots; margin of hindwing from vein 6 gradually widening to tornus black.

UNDERSIDE white, costa and apical area of forewing as above, black with band of subapical lemon yellow spots, base of wing lemon yellow; basal  $\frac{1}{5}$  of hindwing lemon yellow, a row of fulvous orange spots in black margin.

♀. Cream white; *forewing*, base grey, costal area and outer  $\frac{1}{3}$  obliquely sooty brown-black, a white postcellular patch and 2 indistinct subapical spots; *hindwing* stained with fulvous yellow and with sooty brown-black broad margin.

UNDERSIDE white with brown-black areas of forewing as above; basal half of cell and 2 subapical spots fulvous yellow, 3 indistinct subterminal white spots; outer  $\frac{1}{3}$  of hindwing brown-black with submarginal row of fulvous yellow spots, basal  $\frac{1}{6}$  of wing and numerous splashes fulvous yellow. The second ♀ has the fulvous yellow replaced by fulvous orange.

2 ♀♀ Base Camp, Nov. 1912 and Jan. 1913; 1 ♂ Utakwa River 3000 ft., Jan. 1913.

19. *DELIAS ALBERTISI DISCUS* Honr.

*Delias discus* Honrath, *Berl. Ent. Zeitschr.* xxx. p. 130, t. 5, f. 4 (1886) (Sekar).

As neither Oberthür nor Honrath stated the sex of their types, *D. discus* was for many years put down as the ♀ of *D. albertisi* Oberth. When, however, I received the large series collected by A. S. Meek on the Setekwa River we at once saw that this was not the case. There are in reality 3 distinct local races of this insect: *albertisi albertisi* from Arfak Peninsula with entirely black forewings above; *albertisi neyi* from British New Guinea with the basal  $\frac{1}{3}$  of forewing white; and *albertisi discus* with from  $\frac{1}{2}$  to  $\frac{3}{5}$  of the forewing white. Below, the black patch in the disc of the hindwing is, though variable, largest in *a. discus*, medium size in *a. albertisi*, while in *a. neyi* it is reduced to a dot or entirely absent. The sex of both Oberthür's *albertisi* and Honrath's *discus* is female, while Sir George Kenrick has described the ♂ of *albertisi*, though unfortunately giving it a new name, *africanus*.

2 ♂♂ Base Camp, Jan. 1913.

20. *DELIAS BORNEMANNI NAIS* Jord.

*Delias bornemannii nais* Jordan, *Nov. Zool.*, vol. xviii. p. 587, No. 10 (1911) (Mt. Goliath).

6 ♀♀ 16 ♂♂ Snow Mountains, 4000–6000 ft., Jan.—Feb. 1913.

## 21. DELIAS MEEKI NEAGRA Jord.

*Delias meeki neagra* Jordan, *Nov. Zool.*, vol. xviii. p. 592, No. 18 (1911) (Mt. Goliath).

In addition to the fine series of ♂♂ the collection contains an absolutely perfect ♀; the only ♀ hitherto known was the badly broken one of Meek.

26 ♂♂ 1 ♀ Snow Mountains, Utaqua River, 4000-6000 ft., Jan.—Feb. 1913.

## 22. DELIAS MESOBLEMA Jord.

*Delias mesoblema* Jordan, *Nov. Zool.*, vol. xviii. p. 584, No. 3 (1911) (Mt. Goliath).

10 ♂♂ Snow Mountains, 4000-6000 ft., Jan.—Feb. 1913.

## 23. DELIAS WEISKEI LEUCIAS Jord.

*Delias weiskei leucias* Jordan, *Nov. Zool.*, vol. xviii. p. 584, No. 5 (1911) (Mt. Goliath).

3 ♂♂ Snow Mountains, 4000-6000 ft., Jan.—Feb. 1913.

## 24. DELIAS ALEPA Jord.

*Delias alepa* Jordan, *Nov. Zool.*, vol. xviii. p. 585, No. 6 (1911) (Mt. Goliath).

6 ♂♂ Snow Mountains, 4000-6000 ft., Jan.—Feb. 1913.

## 25. DELIAS ISOCHARIS Rothschild &amp; Jord.

*Delias isocharis* Rothschild and Jordan, *Deutsch. Ent. Zeitschr.* 1907, p. 191, No. 4 (1907) (Biagi, Mambare River).

1 ♂ has the red line on the underside of hindwing very narrow and thin, the 2nd is typical; 2 ♂♂ Snow Mountains, 4000-6000 ft., Jan.—Feb. 1913.

## 26. DELIAS KUMMERI Ribbe.

*Delias kummeri* Ribbe, *Insektenbörse*, xvii. p. 308 (1900) (Aroa River, New Guinea).

The single specimen in poor condition belongs to the typical form with the red line on the underside of the hindwings widely interrupted; the form *ligatus* Rothschild and Jord. has this red line complete. There are in the Tring Museum specimens from Biagi, Mambare River, in which the line is pale pink, and others in which it is yellow.

1 ♂ Snow Mountains, 4000-6000 ft., Jan.—Feb. 1913.

## 27. DELIAS LEUCOBALIA DISTINCTA subsp. nov.

♂. UPPERSIDE. *Forewing* differs from *D. l. leucobalia* in having the median  $\frac{1}{3}$  of the wing below vein 2 white, *not* black, and the submarginal row of light spots smaller and more obsolete. *Hindwing* has light area distinctly buff cream and more extended, so that



only the three upper submarginal spots are separate from pale disc; these three spots are diamond-shaped and much larger, and not at all indistinct, as in *l. leucobalia*.

UNDERSIDE. *Forewing* has pale basal half of wing cream-white, *not* grey, and all light markings more distinct. *Hindwing* has all pinkish-white markings much larger and more distinct, and the orange lines and spots are larger, more extended and more brilliant.

12 ♂♂ Carstensz Peak, 5000–10,000 ft., Feb. 1913.

## 28. *DELIAS CARSTENSZIANA* sp. nov.

♂. Nearest to *catisa* Jord. in pattern, and in shape and size to *leucobalia* Jord.

UPPERSIDE.—*Forewing* brownish black, an oval creamy white patch occupying lower  $\frac{2}{3}$  of cell, a postmedian oblique band of 3 cream-white spots and a similar subapical spot, subbasal half of wing below cell cream-white, base of wing brown-black powdered with grey scales. *Hindwing*, base brown-black with grey scales, subbasal  $\frac{3}{4}$  of wing cream-white, abdominal fold golden yellow, white spots on termen at end of veins in both wings. UNDERSIDE.—*Forewing*, basal half obliquely, except costa, bright orange; outer half brown-black, a postmedian strongly oblique band of 3 large spots yellow, 2 subapical spots white with orange streaks: the terminal white spots run inwards along the veins some 2 millimetres, their inner half being orange. *Hindwing* deep black-brown, basal  $\frac{1}{3}$  of costa broadly white edged with orange, an irregular jagged white patch very wide reaches from costa  $\frac{1}{6}$  from base obliquely across the wing to beyond the cell between veins 3 and 7, this patch is edged with orange; 2 orange spots below cell and 2 orange lines from base to tornus along abdominal fold, a submarginal band of large helmet-shaped white spots and a marginal row of pale yellow spots, veins beyond cell orange. One specimen has the cell on forewing above entirely white and the median spot of oblique band much enlarged and joined to white area of cell; another above has the postmedian spots almost obsolete and ground colour intense black.

Expanse 60 mm. Length of forewing 28 mm.

9 ♂♂ Carstensz Peak, 5000–10,000 ft., Feb. 1913.

## 29. *DELIAS WOLLASTONI* sp. nov.

♂. This marvellous insect is unlike any known *Delias*.

UPPERSIDE.—*Forewing* brown-black, lower  $\frac{2}{3}$  of cell and basal  $\frac{2}{3}$  of wing below cell greyish cream-white, a curved line of submarginal spots of same colour on veins 2 to 5 inclusive. *Hindwing*, basal  $\frac{3}{4}$  greyish white, outer  $\frac{1}{4}$  brown-black, a greyish dot on veins 3 and 5. UNDERSIDE.—*Forewing*, basal  $\frac{2}{3}$  obliquely except costa cream-white, cell golden yellow, a broad black arrow-shaped patch at apex of cell, outer  $\frac{1}{3}$  black with broad curved subterminal band of golden spots. *Hindwing* golden olive yellow powdered with black scales, a large crimson maroon patch at base below costa, an ante-

median greyish pink shaded curved band from costa to vein 1, beyond it a broad black band powdered with golden olive and enclosing at end of cell a large crimson maroon patch, a postmedian strongly curved band of somewhat irregular outline consisting of coalescent crimson maroon patches reaching beyond vein 2, a submarginal greyish pink band, and an evanescent black marginal band to vein 2 much powdered with golden olive.

Expanse 61 mm. Length of forewing 29 mm.

1 ♂ Carstensz Peak, 5000-10,000 ft., Feb.—March 1913.

### 30. *DELIAS INEXPECTATA* sp. nov.

♂. UPPERSIDE.—*Forewing* black, a patch at base of cell and basal  $\frac{1}{4}$  below cell greyish white, 2 whitish subapical dots. *Hindwing* creamy white, but with orange and dark marking of underside showing faintly through; from costa to beyond vein 4 a broad black border, which suddenly above vein 3 narrows to a thin black edge. UNDERSIDE.—*Forewing* black, a grey longish dot under costa and some grey scaling on veins 1, 2, and 3; a transverse scarlet subapical band and 3 pinkish white subterminal dots below it. *Hindwing*, base black, a subbasal rectangular scarlet patch below costa edged above with white, a curved black band below it from base above cell along vein 7 to costa, where it is separated from black margin of wing by a white streak; cell and disc of wing between veins 2 and 7 orange, veins white, spreading into a white band between disc and black margin, basal  $\frac{2}{3}$  of cell densely powdered with black scales; abdominal area from base below and along cell and along basal half of vein 2 black densely powdered with orange scales, lower part of this area along apical half of vein 2 to tornus orange scarlet; a black spot above vein 2 and a black dot on vein 5.

Expanse 58 mm. Length of forewing 27 mm.

1 ♂ Carstensz Peak, 5000-10,000 ft., Feb.—March 1913.

### 31. *DELIAS KLOSSI* sp. nov.

♂. UPPERSIDE.—*Forewing* black, cell and basal  $\frac{3}{4}$  of wing below cell creamy-white, the black colour running in along veins 2 and 3, a subapical band of 1 obsolete and 2 distinct white spots. *Hindwing* cream-white, appearing greyish from dark underside shining through, a broad black margin from costa to tornus and a black fringe along abdominal edge. UNDERSIDE.—*Forewing*, basal  $\frac{2}{3}$  obliquely cream-white, costa black, a black band powdered with white along upper edge of cell; outer  $\frac{1}{3}$  above vein 2 black, an oblique band of subapical large spots with inner  $\frac{1}{3}$  of each white and outer  $\frac{2}{3}$  maroon. *Hindwing* maroon, veins white, a submarginal crenulate band pinky white and a marginal band black.

Expanse 66 mm. Length of forewing 31 mm.

1 ♂ Carstensz Peak, 5000-10,000 ft., Feb.—March 1913.

## 32. HUPHINA LADAS (Gr. Smith).

*Delias ladas* Grose Smith, *Nov. Zool.*, i. p. 585 (1894) (German New Guinea).

The single ♂ has the basal yellow streak on the underside of the hindwing obsolescent and the apical spots on forewing much reduced.

1 ♂ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

## 33. HUPHINA EURYXANTHA (Honr.)

*Delias abnormis* var. *euryxantha* Honrath, *Berl. Ent. Zeitschr.* xxxvi. p. 435 (1892) (German New Guinea).

1 ♂ Base Camp. Nov. 1912.

## 34. HUPHINA ABNORMIS (Wall.)

*Tachyris abnormis* Wallace, *Trans. Ent. Soc. Lond.*, ser. 3. vol. iv. p. 368, No. 14 (1867) (N.W. New Guinea).

All 3 ♂♂ show a red spot on hindwing above vein 6. The 2 ♀♀ on the upperside are very yellow. Fruhstorfer hints at *ornytion* Salv. and *euryxantha* Honr. being subspecies of this insect, but this is disproved by *euryxantha* and this form occurring together.

3 ♂♂ 2 ♀♀ Base Camp. Nov.—Dec. 1912.

## 35. APPIAS CELESTINA (Boisd.)

*Pieris celestina* Boisduval, *Voy. Astr., Lép.*, p. 46, No. 1 (1832) (Dorey).

Herr Fruhstorfer divides up this insect into 8 subspecies, of which he attributes *celestina sekarensis* to S. and W. Dutch New Guinea. Ribbe's description of his *sekarensis* is absolutely different from the 12 specimens of the Wollaston expedition. I cannot separate these latter from *celestina* at present, for while some, it is true, show no signs of the submarginal band or spots, others show the same distinctly: and as there are no ♀♀, in which latter sex the differences in the local races are truly defined, it is better to treat these specimens as *celestina*.\*

2 ♂♂ Base Camp, Nov. 1912 and Jan. 1913: 5 ♂♂ Canoe Camp. Oct.—Dec. 1912; 6 ♂♂ Utaqua River, 2500–3000 ft., Feb. 1913.

\* So far no race of *A. celestina* is recorded east of the Bismarck Archipelago, but I have a single specimen from Bougainville, Solomon Islands, which I now describe here as a new race of *A. celestina*, though it will probably prove to be an entirely new species.

*Appias celestina orientalis* subsp. nov.

♂. Differs from the other forms of *celestina* in its larger size and very strongly arched costa. Above it differs in the forewings being entirely blue and in the hindwings having a narrow brown border: the blue on both fore- and hindwings has a decided yellowish tinge. Below it differs from all the forms of *celestina* in being yellow washed with olive and having a broad, curved, sooty submarginal band to both wings. The forewings have also below a bluish wash.

Expanse 88 mm. Length of forewing 42 mm.

*Hab.* Arawa, Bougainville, Solomon Islands, Dec. 1907 (A. S. Meek).

36. *APPAS ADA THASIA* Fruhst.

*Appias ada thusia* Fruhstorfer, *Seitz, Grossschmett.*, Bd. ix. p. 150, t. 60 a (1910) (Ron).

Chiefly distinguished by the broad outer margin in the ♂♂ and reduced orange suffusion in the ♀♀.

1 ♂ 2 ♀♀ Base Camp, March 1913; 2 ♂♂ Uta kwa River, 2500–3000 ft., Feb. 1913.

37. *SALETARA CORINNA* (Wall.)

*Tachyris corinna* Wallace, *Trans. Ent. Soc.*, ser. iii., vol. iv. p. 377, No. 35 (1867) (Waigiu).

1 ♂ Uta kwa River, 2500–3000 ft., Dec. 1912.

38. *ELODINA HYPATIA PASARGA* Fruhst.

*Elodina hypatia pasarga* Fruhstorfer, *Seitz, Grossschmett.*, Bd. ix. p. 122, t. 62, c (1910) (New Guinea).

3 ♂♂ 2 ♀♀ Base Camp, Nov. 1912; 3 ♂♂ 1 ♀ Canoe Camp, Dec. 1912.

39. *TERIAS HECABE OENE* Fruhst.

*Terias hecabe oene* Fruhstorfer, *Seitz, Grossschmett.*, Bd. ix. p. 168 (1910) (New Guinea).

1 ♂ Base Camp, Nov. 1912; 5 ♂♂ Canoe Camp, Dec. 1912; 1 ♂ 1 ♀ Uta kwa River, 2500–3000 ft., Feb. 1913; 1 ♂ Snow Mountains, 4000–6000 ft., Feb. 1913.

40. *TERIAS BLANDA INDECISA* Butl.

*Terias indecisa* Butler, *Ann. Mag. Nat. Hist.* (7) 1, 1898, p. 78 (New Guinea).

6 ♂♂ 3 ♀♀ Uta kwa River, 2500–3000 ft., Dec. 1912—Jan. 1913; 3 ♂♂ 2 ♀♀ Snow Mountains, 4000–6000 ft., Jan.—Feb. 1913; 2 ♂♂ 2 ♀♀ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

41. *TERIAS HARINA BUTYROSA* Butl.

*Terias butyroasa* Butler, *Ann. Mag. Nat. Hist.* (4) 15. p. 396 (1875) (Aru Islands).

2 ♂♂ 1 ♀ Base Camp, Jan. 1913.

42. *TERIAS CANDIDA PUELLA* Boisd.

*Terias puella* Boisduval, *Voy. Astrolabe, Lép.*, p. 60, t. 2, f. 8 (1832) (New Guinea).

7 ♀♀ Base Camp, Nov. 1912; 1 ♂ 3 ♀♀ Canoe Camp, Nov. 1912; 1 ♂ 7 ♀♀ Uta kwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

## DANAIDAE

The collection contains 13 species, of which 2 constitute new subspecies.

## DANAINAE

There are only 4 species of *Danainae* in the collection, all of which are true Papuan forms.

43. *DANAIDA AFFINIS AFFINIS* (Fabr.)

*Papilio affinis* Fabricius, *Syst. Ent.*, p. 511, No. 291 (1775) (India).

1 ♂ Base Camp, March 1913.

44. *DANAIDA SCHENKI PERIPHAS* Fruhst.

*Danaida schenki periphas* Fruhstorfer, *Seitz, Grossschm.*, Bd. ix. p. 206 (1910) (New Guinea).

1 ♂ 3 ♀♀ Base Camp, Nov. 1912—March 1913; 2 ♂♂ Canoe Camp, Nov. 1912;  
2 ♂♂ 3 ♀♀ Utakwa River, 2500–3000 ft., Feb. 1913.

45. *DANAIDA MELUSINE* (Gr. Smith).

*Asthipa melusine* Grose Smith, *Nov. Zool.*, i. p. 586 (1894) (Sattelberg).

1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912.

46. *DANAIDA JUVENTA EUGENIA* (Fruhst.)

*Danaïs juvena eugenia* Fruhstorfer, *Ent. Meddel.*, 1904, p. 294 (German New Guinea).

4 ♂♂ 1 ♀ Base Camp, Nov.—Dec. 1912; 2 ♀♀ Canoe Camp, Nov. 1912; 4 ♂♂ 1 ♀  
Utakwa River, 2500–3000 ft., Nov.—Dec. 1912.

## EUPLOEINAE

There are 7 species, all of which belong to the Papuo-Moluccan fauna exclusively. The only one I am not clear about is that quoted under the name of *Euploea vitella* Montr.; that it is quite a separate insect from *E. melanopa netscheri* is at once apparent by the traces of a submarginal band of spots, but I am not sure what its proper name is, owing to the doubtful description of Montrouzier.

47. *EUPLOEA CONFUSA JAPUDIA* Fruhst.

*Euploea confusa japudia* Fruhstorfer, *Seitz, Grossschm.*, Bd. ix. p. 233 (1910) (Snow Mountains).

1 ♀ Canoe Camp, Nov. 1912.

48. *EUPLOEA MELANOPA NETSCHERI* Snell.

*Euploea netscheri* Snellen, *Tijdschr. Ent.*, p. 384, pl. 8, f. 3 (1889) (Dutch New Guinea).

1 ♂ Base Camp, Nov.—Dec. 1912; 1 ♂ 1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

49. *EUPLOEA VITELLA* Montr.

*Euploea vitella* Montrouzier, *Ann. Se. Phys. Nat. Lyon* p. 403 (1856) (Woodlark Is.).

This name has been a source of doubt for a long time, some authors seeing in it an



*Elymnias*; but it has been identified at the British Museum with the insect I now apply it to.

1 ♂ Canoe Camp, Nov. 1912; 4 ♂♂ Utaqua River, 2500–3000 ft., Feb. 1913.

#### 50. EUPLOEA DOLESCHALII Feld.

*Euploea doleschalii* Felder, *Wien. Ent. Mon.*, iii. p. 267, No. 14, t. 5, f. 2 (1859) (New Guinea).

Herr Fruhstorfer has united the following species with this as a local race, but they occur together and the white spots on underside of hindwing are quite different. The single ♂ belongs to the *ab. moesta* Butl., in which the subapical spots are much reduced.

1 ♂ Base Camp, March 1913.

#### 51. EUPLOEA IMMACULATA Butl.

*Euploea immaculata* Butler, *Journ. Linn. Soc. Lond.*, 1878, p. 303 (British New Guinea).

1 ♂ Base Camp, March 1913; 1 ♂ Canoe Camp, Nov. 1912; 1 ♂ Utaqua River, 2500–3000 ft., Feb. 1913.

#### 52. EUPLOEA CALLITHOE Boisd.

*Euploea callithoe* Boisduval, *Voy. Astrol., Lép.*, p. 93, No. 1 (1832) (New Guinea).

2 ♂♂ Base Camp, Nov.—Dec. 1912.

#### 53. EUPLOEA NEMERTES HERBSTII Boisd.

*Euploea herbstii* Boisduval, *Voy. Astr. Lép.*, p. 95, No. 3 (1832) (New Guinea).

Two of the specimens are typical, while the third belongs to *ab. traducta* Gr. Smith.

3 ♂♂ Base Camp, Nov.—Dec. 1912.

### PALAEOTROPINAE

This subfamily consists of one genus, *Tellervo* (= *Hamadryas* *præoc.*) It contains a number of closely allied forms reaching from Ceram eastwards throughout New Guinea to Queensland and the Solomon Islands. The oldest described form is *zoilus* Fabr. confined to Queensland.

Herr Fruhstorfer in *Seitz* has treated all the forms as local races of a single species, *zoilus*, but this is certainly incorrect, for in Mr. Wollaston's collection there are 8 specimens of both sexes of one form, and 12 of a totally different form, also in both sexes: these 2 forms were taken at the same places and season. The one is a true subspecies of *zoilus* with 2 separate large white subapical spots, while the other is unlike anything hitherto described, though nearest to *hierio* Godm. from the Solomon Islands. I have treated it as a subspecies of *assarica*.

54. *TELLERVO ZOILUS DISTINCTA* subsp. nov.

♂. Similar to *zoilus limetanus* but much larger = *assarica* in size: differs also in the very large subapical patches which are in the ♀♀ pure white, while they are sooty in the ♂♂.

1 ♂ 3 ♀♀ Base Camp, Dec. 1912 and March 1913: 1 ♀ Canoe Camp, Dec. 1912: 1 ♂ 2 ♀♀ Utaqua River, 2500-3000 ft., Dec. 1912—Jan. 1913.

55. *TELLERVO ASSARICA WOLLASTONI* subsp. nov.

♂. Differs from *assarica assarica* in its much smaller size and rounder wings and in the oval not rectangular white disc of the hindwings. The subapical patch is smaller and more convex on the inner side (basad). The ♂ differs from the ♀ only in the white markings of the forewings being smoky, not white.

2 ♂♂ 1 ♀ Base Camp, Dec. 1912—Jan. 1913: 3 ♂♂ 6 ♀♀ Utaqua River, 2500-3000 ft., Dec. 1912—Jan. 1913.

## SATYRIDAE

There are 17 species in the collection, of which 5 are new forms.

## SATYRINAE

There are 16 species in the collection, including 4 new species and 1 new subspecies.

56. *HYPOCISTA ISIS* Fruhst.

*Hypocista isis* Fruhstorfer, Seitz, *Grossschm.*, Bd. ix, p. 296, t. 93, d. (1911) (W. German New Guinea).

1 ♂ Base Camp, Jan. 1913.

56a. *PLATYPHTHIMA KLOSSI* sp. nov.

♂. UPPERSIDE.—*Forewing* dark umber brown with trace of postmedian paler band. *Hindwing* dark umber brown with a large ocellus on each side of vein 3 and one above vein 4. UNDERSIDE.—*Forewing* as above, but postmedian pale band distinct, all below vein 2 as well as the band pale earth-brown. *Hindwing* with median transverse chocolate band and postdiscal complete band of ocelli surrounded by a band of metallic violet, a narrow submarginal violet line.

♀. Larger, a dark median oblique band from costa to vein 2. *Hindwing* has outer  $\frac{1}{5}$  darker and with 2 large ocelli and narrow orange and violet submarginal lines.

Expanse, ♂ 44 mm. Length of forewing 21 mm.

Expanse, ♀ 49 mm. Length of forewing 23 mm.

2 ♂♂ 1 ♀ Carstensz Peak, 5000-10,000 ft., Feb.—March 1913.

57. *HARSIESIS PALLIDIFASCIA* sp. nov.

♀. *Above* dark greyish earth-brown, antennae black, a band below club and portions of club rufous. a broad oblique dull white band reaching from subcostal vein almost to tornus beyond vein 2. *Below* forewings similar, but with narrow black-brown submarginal line. Hindwing dark black-brown; beyond the cell are 2 broad metallic transverse violet bands, joined at costa and tornus, and enclosing on veins 2 and 3 a very large ocellus and above it 3 and below 1 violet point, a narrow black submarginal line.

Expanse 53 mm. Length of forewing 25 mm.

2 ♀♀ Base Camp, Jan. 1913.

58. *MYCALESIS TERMINUS ASOPHIS* Hew.

*Mycalesis asophis* Hewitson, *Exotic Butt.* iii., *Mycalesis* iv., Nos. 20, 21 (1866) (Mysol).

2 ♂♂ Base Camp, Nov.—Dec. 1912; 2 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

59. *MYCALESIS PHIDON PHIDON* Hew.

*Mycalesis phidon* Hewitson, *Exotic Butt.* iii., *Mycalesis* iii., No. 16 (1866) (Aru).

8 ♂♂ 1 ♀ Base Camp, Nov. 1912—Jan. 1913; 4 ♂♂ Utakwa River, 2500–6000 ft., Dec. 1912—Feb. 1913.

60. *MYCALESIS BIFORMIS* sp. nov.

♂. *Above* black with blue-green corvine gloss: on forewing 2 ocelli black with white centre, one on vein 2 and one on vein 5, on hindwing 3 ocelli with sooty yellow rings, one below vein 2 and one above and below vein 3. *Below* pale lavender pearl grey: forewing with basal half somewhat suffused with brown, a patch of andraconia below cell and a brown line across centre of cell, a brown median transverse band and a postmedian broad shadow band on which are 2 large and 1 small ocellus, beyond the ocelli a waved narrow brown line, a submarginal brown line, fringe deep brown: hindwing has an antemedian and a median brown transverse band, a postmedian complete band of 5 ocelli, the post-ocellular and submarginal lines as in forewing.

♀. *Above* deep brown, the 2 ocelli in forewing larger than in ♂ and a broad white median transverse band from vein 4 to inner margin occupying central  $\frac{1}{3}$  of wing: on hindwing the ocelli are very large and a median white band occupies central  $\frac{1}{3}$  of wing from costa to beyond vein 3. *Below* differs from ♂ in the portion basad of the ocelli being white and distad of them grey-brown.

Expanse, ♂ 55 mm. Length of forewing 26 mm.

Expanse, ♀ 61 mm. Length of forewing 29 mm.

2 ♂♂ 4 ♀♀ Utakwa River, 4000–6000 ft., Dec. 1912—Jan. 1913.

## 61. MYCALESIS MAHADEVA FULVIANA Gr. Smith.

*Mycalesis fulviana* Grose Smith, *Nov. Zool.*, i. p. 360 (1894) (Humboldt Bay).

6 ♂♂ 2 ♀♀ Base Camp, Nov.—Dec. 1912 : 1 ♂ 3 ♀♀ Utaqua River, Jan. 1913.

## 62. MYCALESIS DISCOBOLUS SIGNATA subsp. nov.

♂. Differs from *d. discobolus* above in being entirely deep sooty brown, *not* tinged with rufous, the pale band on forewing orange brown, *not* rufous brown, the apex of forewing more rounded, 2 ocelli *not* 1 on forewing, and 3 ocelli *not* 2 dots on hindwing. On both wings the basal half is sharply cut off from pale band, *not* merging into it. *Below*, the ocelli, though small, are complete, not reduced to dots.

♀ larger and wings more graduate.

Expanse, ♂ 56 mm. Length of forewing 26 mm.

Expanse, ♀ 62 mm. Length of forewing 29 mm.

2 ♂♂ 1 ♀ Carstensz Peak. 5000–10,000 ft., Feb.—March 1913.

## 63. MYCALESIS FULVIANETTA sp. nov.

♂. At first sight might be mistaken for a small *fulviana*. *ABOVE*.—*Forewing* orange-brown, upper  $\frac{3}{4}$  of cell deep rufous chestnut, outer  $\frac{1}{4}$  of wing and costal area above cell and above vein 5 sooty black. *Hindwing* has ring round scent-patch *not* entire as in *fulviana*, but broken, orange-brown with submarginal line and margin black-brown. A small ocellus above vein 2, in fore- and hindwing. *BELOW*.—*Forewing* pink, 2 rufous transverse bands in basal  $\frac{2}{3}$  of wing, a band of 4 ocelli beyond the 2nd band and 2 subterminal lines rufous, the inner one zigzag. *Hindwing* pink, abdominal area yellowish orange, 2 discal transverse bands and 2 submarginal lines rufous, a postdiscal band of 5 ocelli.

Expanse 43 mm. Length of forewing 20 mm.

1 ♂ Utaqua River. 4000–6000 ft., Dec. 1912—Jan. 1913.

## 64. MYCALESIS BIZONATA Gr. Smith.

*Mycalesis bizonata* Grose Smith, *Rhop. Exot.*, iii. p. 14 (1902) (Milne Bay).

6 ♂♂ 2 ♀♀ Base Camp, Nov.—Dec. 1912.

## 65. MYCALESIS EMINENS Stdgr.

*Mycalesis emimens* Staudinger, *Iris*, vol. 6, p. 360 (1893) (German New Guinea).

3 ♂♂ 1 ♀ Base Camp, Nov.—Dec. 1912 : 1 ♂ Canoe Camp, Nov. 1912 : 1 ♀ Utaqua River, 2500–3000 ft., Feb. 1913.

## 66. MYCALESIS MUCIA MELANOPIS Godm. &amp; Salv.

*Mycalesis melanopis* Godman and Salvin, *P.Z.S.*, 1880, p. 610, pl. 56, fig. 2 (New Guinea).

1 ♀ Base Camp, Nov.—Dec. 1912 : 4 ♂♂ 1 ♀ Utaqua River. 2500–3000 ft., Feb. 1913.

## 67. MYCALESIS BAZOCHII (Guér.)

*Satyrus bazochii* Guérin, *Voy. Coq.*, t. 14, a., f. 3 (1829) (New Guinea).

4 ♂♂ 2 ♀♀ Utaqua River, 2500–3000 ft., Feb. 1913.

## 68. MELANITIS LEDA OFFAKA Fruhst.

*Melanitis offaka* Fruhstorfer, *Ent. Zeitschr. Stuttg.*, p. 87 (1908) (Waigiu).

1 ♂ Base Camp, Nov. 1912.

## 69. MELANITIS CONSTANTIA KAPAURA Fruhst.

*Melanitis kapaura* Fruhstorfer, *Ent. Zeitschr. Stuttg.*, p. 83 (1908) (Kapaur).

1 ♀ Base Camp, Nov. 1912.

## 70. MELANITIS AMATHILIS VALENTINA Fruhst.

*Melanitis valentina* Fruhstorfer, *Ent. Zeitschr. Stuttg.*, p. 83 (1908) (New Guinea).

2 ♂♂ Base Camp, Jan.—March 1913; 1 ♂ Canoe Camp, Nov. 1912.

## ELYMNINAE

1 species, very variable.

## 71. ELYMNIA AGONDAS (Boisd.)

*Dytis agondas* Boisduval, *Voy. Astrol., Lép.*, p. 158, t. 3, fig. 5 (1832) (Is. Vanikoro).

This insect is extremely variable and the ♀ is polymorphic, the extreme pale form mimicking *Tenaris bioculatus*. Mr. Wollaston's collection contains 8 ♂♂, one of which from Utaqua River agrees exactly with the picture of *muscosa* Fruhst. while the rest range from typical *agondas* through *melagondas* Fruhst. to *goramensis* Fruhst. I think, therefore, that at present at least we must treat the bulk of the named forms as aberrations with the exception of *agondas australiana* Fruhst.

3 ♂♂ Base Camp, Nov. 1912—March 1913; 4 ♂♂ Canoe Camp, Nov. 1912; 1 ♂ Utaqua River, 2500–3000 ft., Feb. 1913.

## AMATHUSIIDAE

The *Amathusiidae* contain two subfamilies: the *Amathusiinae*, which are exclusively Old World insects, and the *Brassolinae* of the New World. They have both true *Satyrine* larvae with bifurcated anal segment, which at once distinguishes them from the *Morphidae* with which they were formerly united. The larvae of the latter have *non-bifurcated* anal segments, and are hairy like the larvae of certain *Bombyces*. The collection contains 10 species.



## AMATHUSIINAE

There are 10 species in the collection, 1 species and 2 subspecies being new.

72. *HYANTIS ALBIPLAGA* sp. nov.

♂. UPPERSIDE.—Head and thorax sooty black-brown; abdomen orange buff.

*Forewing* sooty black-brown, washed with grey below median vein and vein 3, outer  $\frac{2}{5}$  of cell and area between veins 3 and 5 white. *Hindwing*, basal  $\frac{2}{3}$  above vein 2 whitish, outer  $\frac{1}{3}$  above fold between veins 1 and 2 sooty black-brown, abdominal area to half way between veins 1 and 2 orange buff, a large discal eye orange with black centre.

UNDERSIDE.—*Forewing* as above, but with subapical eye consisting of outer orange yellow ring and black pupil with white central dot; a white dot above eye. *Hindwing* as above, only abdominal area washed with brown, and 2 large eyes, one above and one below vein 3.

Expanse 92 mm. Length of forewing 84 mm.

1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

73. *MORPHOPSIS ALBERTISI* Oberth.

*Morphopsis albertisi* Oberthür, *Ann. Mus. Civ. Genova*, 1880, p. 513 (Andai).

2 ♂♂ Base Camp, March 1913; 1 ♂ Canoe Camp, Nov. 1912.

74. *TAENARIS BIOCULATUS GRIDESCENS* subsp. nov.

♂. ABOVE.—*Forewing* uniform grey, inner margin and basal half of costa whitish. *Hindwing* yellowish grey, broad margin and area below median vein and vein 2 sooty black, abdominal area to beyond vein 1 suffused with pinkish; ocellus indistinct blue. BELOW.—*Forewing* dark blackish grey, area below vein 3 and median vein white. *Hindwing* with curved median area dark buff.

♀. ABOVE.—*Forewing*, basal  $\frac{2}{3}$  white, costal area and apical  $\frac{1}{3}$  sooty grey. *Hindwing* with broad sooty grey margin, pale central area yellow grey, ocellular area large, black, 2 blue ocelli. BELOW, pale area of hindwings buff.

3 ♂♂ Base Camp, Nov. 1912; 1 ♀ Canoe Camp, Nov. 1912.

75. *TAENARIS DIMONA KAPAU* (Fruhst.)

*Tenaris dimona kapaura* Fruhstorfer, *Soc. Ent.*, 19, p. 129 (1904) (Kapaur).

1 ♂ Base Camp, Nov. 1912.

76. *TAENARIS ARTEMIS ARTEMIS* (Voll.)

*Drusilla artemis* Vollenhoven, *Tijd. Ent.*, iii. p. 35, t. 1, f. 1, 2 (1860) (New Guinea).

1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

77. *TAENARIS STAUDINGERI STAUDINGERI* Honr.

*Taenaris staudingeri* Honrath, *Berl. Ent. Zeitschr.*, 33, p. 163 (1889) (German New Guinea).

1 ♂ Utake River. 4500 ft., Dec. 1912.

78. *TAENARIS CATOPS CATANEA* (Fruhst.)

*Tenaris catops catanea* Fruhstorfer, *Soc. Ent.* 19, p. 129 (1904) (Dutch New Guinea).

The single ♀ is a striking aberration, being entirely white above with exception of the costal area of the forewings and a border on the hindwings which is widest at costa, diminishing rapidly till it ends at vein 3. I propose for this the name *ab. albidior*.

7 ♂♂ Base Camp. Nov. 1912—Feb. 1913; 1 ♀ Utake River, 2500–3000 ft., Feb. 1913.

79. *TAENARIS DIOPTERICA DIOPTERICA* (Voll.)

*Drusilla dioptrica* Vollenhoven, *Tijd. Ent.*, iii. p. 38, t. 2, f. 2 (1860) (New Guinea).

2 ♂♂ Base Camp, Nov. 1912.

80. *TAENARIS ONOLAUS SEKARENSIS* (Stdgr.)

*Tenaris honrathi* var. *sekarensis* Staudinger, *Exot. Schm.*, i. p. 192 (1888) (N.W. New Guinea).

1 ♂ Canoe Camp, Nov. 1912.

The Genus *MORPHOTENARIS*.

This genus was established by Fruhstorfer in 1893 for the remarkable butterfly *Morphotenaris schoenbergi* from the western portion of German New Guinea. The principal distinguishing characters stated by its author to have induced him to separate it from *Taenaris*, are the strongly sickle-shaped outer half of the forewings, the ovate not round hindwings, and the strong development of the nervures on the underside of the wings. When sufficient material has been collected to enable us to make a final revision of the genus *Taenaris* it will, I am certain, prove impossible to uphold *Morphotenaris*, but at present I prefer not to sink it as a synonym of the former. The single species consists of 5 local races and a possible sixth. I have described the North-Eastern coastal race in a footnote.

81. *MORPHOTENARIS SCHOENBERGI WOLLASTONI* subsp. nov.

♀. Differs from *M. s. schoenbergi* in the basal area of the forewings being pale buff instead of coffee brown, and in the vertex of the head and front half of the thorax being intense black instead of whitish grey.

Expanse 162 mm. Length of forewing 78 mm.

1 ♀ Utake River, 4000 ft., Dec. 1912.

A second very defective ♀ was got by A. S. Meek on Mt. Goliath. This specimen

is pure white with basal  $\frac{1}{3}$  of costa, palpi, head, and front half of thorax primrose yellow. Should subsequent specimens prove these differences to be constant, I propose for the Mt. Goliath race the name of *Morphotenaris schoenbergi flavipalpis*. To make the distribution clear and to diagnose the differences of the local races, I here give a synopsis of 4 out of the 5 definitely established forms, the 5th being described above.

MORPHOTENARIS SCHOENBERGI KENRICKI B.-Baker.

Basal area of forewings half black, half rufous chestnut (Arfak Peninsula).

M. SCHOENBERGI SCHOENBERGI Fruhst.

Basal area of forewings ranging from coffee brown to orange brown (Western German New Guinea).

M. SCHOENBERGI LITTORALIS Rothsch.\*

Basal area of forewings grey brown (Coasts of Huon Gulf and Northern British New Guinea).

M. SCHOENBERGI NIVESCENS Rothsch.

Basal area of forewings pure white, very rarely somewhat washed with mouse grey (Owen Stanley Mountains).

NYMPHALIDAE

Dr. Wollaston sent 29 species of *Nymphalidae*.

82. CUPHA MADESTES ODERCA Fruhst.

*Cupha madestes oderca* Fruhstorfer, *Seitz, Grossschm.*, Bd. ix. p. 469 (1912) (German New Guinea).

2 ♂♂ Base Camp, Nov. 1912—Jan. 1913; 1 ♀ Canoe Camp, Dec. 1912; 5 ♂♂ 1 ♀ Utakwa River, Dec. 1912—Feb. 1913.

83. ATELLA ALCIPPE CERVINA Butl.

*Atella cervina* Butler, *P.Z.S.*, 1876, p. 767, tab. 77, fig. 5 (New Guinea).

2 ♂♂ Base Camp, Nov. 1912.

\* MORPHOTENARIS SCHOENBERGI LITTORALIS subsp. nov.

♂. Differs from *M. s. schoenbergi* in the basal area of forewing being sooty-brown grey, *not* coffee brown or orange brown.

♀. Similar, but the grey-brown basal area of forewing washed with yellow.

*Hab.* Collingwood Bay, British New Guinea, 4 ♂♂ 1 ♀; Huon Gulf, 1 ♂.

84. *ISSORIA SINIA OFFAKA* Fruhst.

*Issoria sinia offaka* Fruhstorfer, *Ent. Meddel.*, p. 314 (1904) (Waigiu).

2 ♂♂ Base Camp, Dec. 1912 : 3 ♂♂ 3 ♀♀ Uta~~wa~~ River, 2500-6000 ft., Dec. 1912  
Feb. 1913.

85. *CYNTHIA ARSINOË REBELI* Fruhst.

*Cynthia arsinoë rebeli* Fruhstorfer, *Ent. Zeitsch.*, xix. p. 215 (1905) (German New Guinea).

3 ♂♂ Base Camp, Nov.—Dec. 1912 : 1 ♂ Canoe Camp, Nov. 1912 : 11 ♂♂ Uta~~wa~~ River, 2500-3000 ft., Dec. 1912—Feb. 1913.

86. *CIRROCHROA FELDERI FELDERI* (Kirsch)

*Messaras felderi* Kirsch, *Mitt. Mus. Dresd.*, p. 123, pl. 6, f. 3, 3 a (1877) (New Guinea).

1 ♀ Base Camp, Dec. 1912 : 1 ♂ 2 ♀♀ Uta~~wa~~ River, 2500-3000 ft., Dec. 1912.

87. *CIRROCHROA REGINA MYRA* Fruhst.

*Cirrochroa regina myra* Fruhstorfer, *Soc. Entomol.* 21, p. 178 (1907) (New Guinea).

4 ♂♂ 2 ♀♀ Base Camp, Nov.—Dec. 1912 : 1 ♂ Canoe Camp, Nov. 1912 : 1 ♂ Uta~~wa~~ River, 2500-3000 ft., Feb. 1913.

88. *CETHOSIA CHRYSIPPE DAMASIPPE* Feld.

*Cethosia damasippe* Felder, *Reise Novara, Lep.*, iii. p. 379, No. 550 (1867) (New Guinea).

5 ♂♂ 4 ♀♀ Base Camp, Nov. 1912—March 1913 : 3 ♂♂ Canoe Camp, Nov. 1912 : 2 ♂♂  
2 ♀♀ Uta~~wa~~ River, 2500-6000 ft., Dec. 1912—Feb. 1913.

1 ♀ from the Base Camp is ♀ forma *hermanni* Fruhst., and 1 ♂ from Uta~~wa~~ River is intermediate between that and the normal ♀ : the remaining specimens are normal *damasippe*.

89. *PRECIS HEDONIA ZELIMA* (Fabr.)

*Papilio zelima* Fabricius, *Syst. Ent.*, p. 492, No. 212 (1775) (Australia).

1 ♀ Base Camp, March 1913.

90. *SYMBRENTHIA HIPPOCLUS HYLAEUS* (Wall.)

*Laogona hylaeus* Wallace, *Trans. Ent. Soc. Lond.*, 1869, p. 345 (Dorey).

1 ♂ 1 ♀ Base Camp, Nov.—Dec. 1912.

91. *MYNES GEOFFROYI GEOFFROYI* (Guér.)

*Nymphalis geoffroyi* Guérin, *Voy. Coq.*, t. 16, f. 1 (1829) (Dutch New Guinea).

This insect is dimorphic : the one form, *M. geoffroyi geoffroyi* form. dimorph. *geoffroyi*, has the disc on the underside of the hindwing white more or less suffused with yellow,

while the other, form, dimorph. *doryca* Butl., has the whole disc black. Intermediate specimens are extremely rare.

2 ♂♂ 1 ♀ f. d. *geoffroyi*, 2 ♂♂ 4 ♀♀ f. d. *doryca*, Base Camp, Nov. 1912—March 1913 ; 1 ♂ f. d. *geoffroyi*, 3 ♂♂ f. d. *doryca*, Canoe Camp, Nov. 1912 ; 1 ♀ f. d. *doryca* Utaqua River, Nov. 1912.

#### 92. YOMA SABINA VESTINA Fruhst.

*Yoma sabina vestina* Fruhstorfer, *Seitz, Grossschmett.*, Bd. ix. p. 541 (1912) (Kapaur).

1 ♂ Base Camp, Nov.—Dec. 1912 ; 1 ♂ 1 ♀ Canoe Camp, Nov. 1912 ; 1 ♀ Utaqua River, 2500–3000 ft., Feb. 1913.

#### 93. HYPOLIMNAS ANTILOPE ANTILOPE (Cr.)

*Papilio antilope* Cramer, *Pap. Ex.* ii. t. 183, E. F. (1779) (Amboina).

This is a most variable insect, and typical specimens are found throughout the range of the species, though in most of the localities only exceptionally.

1 ♂ Base Camp, Nov.—Dec. 1912 ; 1 ♂ Canoe Camp, Nov. 1912 ; 1 ♂ Utaqua River, 2500–3000 ft., Feb. 1913.

#### 94. HYPOLIMNAS BOLINA (Linn.)

*Papilio bolina* Linnaeus, *Mus. Lud. Utr.*, p. 295 (1764) (In Indiis).

This is one of the most widespread insects and at the same time one of the most variable, the ♀♀ being polymorphic and polychromatic to an extraordinary degree. The range of the species is from the island of Socotra to most of the Pacific Islands, besides India, China, Malacca, and Australia, all the Malayan, Moluccan, Philippine, and Papuan Islands, as well as many other isolated islands. The species has been much discussed, and the literature concerning it is enormous. As a consequence it has received a large variety of names, many only aberrational, but also not a few subspecific. As, however, Mr. Wollaston has sent no ♂♂ I prefer to leave the question of the exact subspecies to a later period, when all the vast material in the British Museum and my own collection can be properly examined. The two ♀♀ of Mr. Wollaston agree completely with the ♀ forma *iphiogenia* Cram.

1 ♀ Base Camp, March 1913 ; 1 ♀ Utaqua River, 2500–3000 ft., Feb. 1913.

#### 95. HYPOLIMNAS DEOIS DIVINA Fruhst.

*Hypolimnas deois divina* Fruhstorfer, *Iris*, xvi. p. 66 (1903) (New Guinea).

1 ♂ Base Camp, Nov. 1912 ; 1 ♂ Utaqua River, 2500–3000 ft., Dec. 1912.



## 96. DOLESCHALLIA HEXOPHTHALMOS KAPAURENSIS Fruhst.

*Doleschallia hexophthalmos kapaurensis* Fruhstorfer, *Berl. Ent. Zeit.*, xliv, p. 281 (1899) (Kapur).

1 ♀ Base Camp, Dec. 1912.

## 97. CYRESTIS ACHATES ACHATES Butl.

*Cyrestis achates* Butler, *P.Z.S.*, 1865, p. 481, No. 2 (Mysol).

1 ♂ Base Camp, Nov. 1912; 1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

## 98. CYRESTIS ACILIA ACILIA (God.)

*Nymphalis acilia* Godart, *Enc. Méth.* ix, p. 378, No. 94 (1819) (Waigiau).

Herr Fruhstorfer in *Seitz* places this insect as a subspecies under *C. ceramensis* Martin, thus attempting to show which of the various forms of *acilia* is nearest to the ancestral one. I think all zoologists have agreed that to carry out a classification on phylogenetic lines is impossible, and therefore have decided that for convenience the oldest named form of a group of subspecies is to be taken as the typical name-form while considering every and all the subspecies of equal biological value. Therefore in this case *C. acilia* is the oldest name, and *ceramensis* Martin must stand as *C. acilia ceramensis*, NOT *acilia* as *C. ceramensis acilia*.

3 ♂♂ 1 ♀ Base Camp, Nov. 1912—March 1913; 1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

## 99. ACCA VENILIA GRIMBERTA Fruhst.

*Acca venilia grimberta* Fruhstorfer, *Stett. Ent. Zeit.*, 69, p. 284 (1908) (German New Guinea).

Herr Fruhstorfer has separated a number of species usually included in the genus *Neptis* under the generic term *Rahinda* Moore, which he again divides into 2 SUBGENERA, *Rahinda* and *Acca*. As *Acca* is a much older name than *Rahinda*, it must under any circumstance be used as the correct generic term for the group Herr Fruhstorfer calls *Rahinda*. I shall leave it to the future to decide whether the fact that the second subcostal nervure arises before the cell, or beyond it, is a good generic distinction; and meanwhile make use of the genus *Acca* here.

2 ♂♂ Base Camp, Nov. 1912; 2 ♂♂ 2 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912–Feb. 1913.

## 100. ACCA CONSIMILIS STENOPA (Fruhst.)

*Rahinda consimilis stenopa* Fruhstorfer, *Stett. Ent. Zeit.*, 69, p. 267 (1908) (German New Guinea).

I see no reason to separate these yellow banded forms from the blue and white banded true *Acca*, for there are species with white bands and also grey bands as well as alternate white and yellow bands, and the fact that while in true *Acca* the second subcostal arises

from the cell apex while in *Rahinda* it arises just beyond is not a character to warrant separating *Acca* into two genera.

1 ♂ Base Camp, March 1913.

101. NEPTIS BREBISSONII BREBISSONII Boisd.

*Limnitis brebissonii* Boisduval, *Voy. Astrol., Lép.*, p. 132, No. 2 (1832) (New Guinea).

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

102. NEPTIS NAUSICAA SPARAGMATA Fruhst.

*Neptis nausicaa sparagmata* Fruhstorfer, *Stett. Ent. Zeit.*, 69, p. 412 (1908) (Tanah-Merah).

All 4 subspecies of *N. nausicaa* can at once be separated from any of the 12 subspecies of *N. praslini* by the absence of 2 out of the 3 basal white spots on the underside of the hindwings.

1 ♂ Base Camp, March 1913 : 1 ♂ Canoe Camp, Nov. 1912 : 1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

103. NEPTIS PRASLINI PAPUA Oberth.

*Neptis papua* Oberthür, *Ann. Mus. Civ. Genova*, xii. p. 460 (1878) (Dorey).

1 ♂ Base Camp, Nov.—Dec. 1912.

104. NEPTIS SHEPHERDI DAMIA Fruhst.

*Neptis shepherdii damia* Fruhstorfer, *Ent. Zeit. Guben.*, p. 101 (1905) (New Guinea).

2 ♂♂ Base Camp, Nov. 1912.

105. PARTHENOS TIGRINA TIGRINA (Voll.)

*Minetra tigrina* Vollenhoven, *Tijd. Ent.*, vol. ix. p. 210, t. 10, f. 2 (1866) (New Guinea).

1 ♂ 2 ♀♀ Base Camp, Nov. 1912—Jan. 1913 ; 1 ♀ Canoe Camp, Nov. 1912 ; 3 ♂♂ 4 ♀♀ Utakwa River, 2500–3000 ft., Feb. 1913.

106. APATURINA ERMINEA PAPUANA Ribbe.

*Apaturina erminea* v. *papua* Ribbe, *Iris*, vol. i. no. 3, p. 84 (1884–1888) (Aru).

1 ♂ Base Camp, Nov.—Dec. 1912 : 1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

107. ADOLIAS AEROPUS (Linn.)

*Papilio acropus* Linnaeus, *Mus. Lud. Ulr.*, p. 256 (1764) (Amboina).

2 ♂♂ 1 ♀ Base Camp, Nov. 1912 ; 1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

108. CHARAXES LATONA PAPUENSIS Butl.

*Charaxes papuensis* Butler, *Lep. Exot.*, i. p. 15, No. 6, pl. 6, figs. 1, 4 (1869) (New Guinea).

1 ♂ Canoe Camp, Oct. 1912.

109. *PROTHOE AUSTRALIS AUSTRALIS* (Guér.)

*Nymphalis australis* Guérin, *Voy. Coq.*, t. 14 bis, fig. 4 (1829) (New Guinea).

This is a most variable species both as regards its Papuan race *australis* as well as its Moluccan race *mulderi*. Of the 9 ♂♂ and 7 ♀♀ procured by Mr. Wollaston only 1 ♂ is typical. Of the rest 8 ♂♂ and 3 ♀♀ have a large cream-yellow discal patch on forewing, and agree best with the form *westwoodi*; the 9th ♂ has the forewing all black with only faint indications of the usual submarginal dots, the remaining 3 ♀♀ have all the markings white.

5 ♂♂ 4 ♀♀ Base Camp, Nov. 1912—Jan. 1913; 2 ♂♂ 1 ♀ Canoe Camp, Nov. 1912; 2 ♂♂ 2 ♀♀ Uta kwa River, 2500–3000 ft., Dec. 1912—Feb. 1913.

110. *ACRAEA MOLUCCANA MEYERI* Kirsch.

*Acraea meyeri* Kirsch, *Mitt. Mus. Dresd.*, p. 123, pl. 6, f. 2 (1877) (New Guinea).

1 ♂ 4 ♀♀ Snow Mountains, 4000–6000 ft., Jan—Feb. 1913; 1 ♂ Uta kwa River, 4000–6000 ft., Dec. 1912—Jan. 1913.

## LEMONIIDAE

6 species of *Lemoniidae* are contained in the collection.

## LIBYTHAEINAE

One species only is represented in the collection, the well-known *Libythea geoffroyi*.

111. *LIBYTHEA GEOFFROYI GEOFFROYI* God.

*Libythea geoffroyi* Godart, *Enc. Méth.* ix., Suppl. p. 813 (1823) (Java).

This insect is extremely variable, and consequently has been given a number of names. I do not think it is quite clear if *L. geoffroyi* is as widely polymorphic in every part of its range as it is in New Guinea: but it is evident from the material in collections that it varies locally as well as individually in certain parts of its enormous range, which extends from Java in the west to New Caledonia in the east. I will only mention here that I have a specimen from Simbang, quite unlike other Simbang individuals, which agrees perfectly with Butler's *pulchra* from New Britain.

Mr. Wollaston's ♀ is typical.

1 ♂ 1 ♀ Base Camp, Nov. 1912; 4 ♂♂ Canoe Camp, Dec. 1912; 1 ♂ Uta kwa River, 2500–3000 ft., Feb. 1913.

## NEMEOBIINAE

There are 5 species of *Nemobiinae* in the collection.

## 112. PRAETAXILA SEGECIA (Hew.)

*Sospita segecia* Hewitson, *Exot. Bull.* ii., Sosp., t. 1, ff. 4-6 (1861) (Aru, Mysol).

Herr Fruhstorfer in "*Seitz*" is splitting up the *Abisaras* and *Dicallaneuras* into a number of local forms, but I consider the material available of this species is much too scanty to warrant this; although I fully admit there is much variation.

1 ♂ 4 ♀♀ Base Camp, Nov. 1912—March 1913; 2 ♀♀ Utaqua River, 2500-3000 ft., Feb. 1913.

## 113. PRAETAXILA STATIRA DHYANA Fruhst.

*Praetaxila statira dhyana* Fruhstorfer, *Seitz, Grossschm.*, Bd., ix. p. 795 pl. 140 f. (1914) (Utaqua River).

2 ♂♂ Base Camp, Nov. 1912—Jan. 1913; 1 ♀ Utaqua River, 2500-3000 ft., Dec. 1912.

## 114. PRAETAXILA POSTALBA (Roths. &amp; Jord.)

*Abisara postalba* Rothschild and Jordan, *Deutsch. Ent. Zeitschr.*, 1907, p. 192 (Biagi, Mambare River).

2 ♀♀ Base Camp, Dec. 1912; 1 ♂ 5 ♀♀ Utaqua River, 2500-3000 ft., Dec. 1912.

## 115. PRAETAXILA EROMENA (Jord.)

*Abisara eromena* Jordan, *Nov. Zool.*, Bd. xviii. p. 594 (1911) (Utaqua River).

1 ♂ Base Camp, Nov. 1912.

## 116. DICALLANEURA DECORATA TANTRA Fruhst.

*Dicallaneura decorata tantra* Fruhstorfer, *Seitz, Grossschm.*, Bd. ix. p. 788 (1914) (S.W. Dutch New Guinea).

2 ♂♂ 6 ♀♀ Base Camp, Nov. 1912—March 1913; 2 ♂♂ 3 ♀♀ Canoe Camp, Nov. 1912; 2 ♂♂ Utaqua River, 2500-3000 ft., Feb. 1913.

## LYCAENIDAE

There are 59 species in the collection, of which 12 species and 4 subspecies are new.

I have not divided the *Lycaenidae* into subfamilies because there are still some doubts as to the limits of the various sections, and have therefore contented myself with arranging the genera in the order followed in the British Museum.

## 117. CYANIRIS DRUCEI B.-Baker.

*Cyaniris drucei* Bethune-Baker, *Ann. Mag. Nat. Hist.* (7), xvii. p. 102 (1906) (British New Guinea).

1 ♂ Utakwa River, 4000-6000 ft., Dec. 1912—Jan. 1913; 2 ♂♂ Snow Mountains, 4000-6000 ft., Jan.—Feb. 1913.

## 118. CYANIRIS OWGARRA PARVIPUNCTA subsp. nov.

♂. Differs from *o. owgarra* by having on the underside in basal half of hindwing all spots much smaller, and the inner line behind submarginal row of spots absent.

2 ♂♂ Utakwa River, 4000-6000 ft., Dec. 1912—Jan. 1913; 1 ♂ (type) Snow Mountains, 4000-6000 ft., Jan.—Feb. 1913.

## 119. EUPSYCHELLUS DIONYSIUS (Boisd.)

*Lycaena dionysius* Boisdual, *Voy. Astrol., Lép.*, p. 82, No. 11 (1832) (New Guinea).

1 ♂ 1 ♀ Base Camp, Dec. 1912—March 1913; 2 ♂♂ Utakwa River, 2500-3000 ft. Dec. 1912—Jan. 1913.

## 120. UPOLAMPES STRIATA B.-Baker.

*Upolampes striata* Bethune-Baker, *P.Z.S.*, 1908, vol. i. p. 118, pl. ix., f. 15 (Aroa River).

2 ♂♂ Utakwa River, 4000-6000 ft., Dec. 1912—Jan. 1913.

## 121. LYCAENESTHES LYCAENOIDES (Feld.)

*Dipsas lycaenoides* Felder, *Sitzb. Ak. Wiss. Wien. Math. Nat. Cl.* xl. p. 454, No. 21 (1860) (Amboina).

3 ♂♂ Base Camp, Jan.—March 1913.

## 122. LYCAENESTHES ARUANA Butl.

*Lycaenesthes aruana* Butler (ubi?).

3 ♂♂ Base Camp, Dec. 1912—March 1913; 1 ♂ Utakwa River, 2500-3000 ft., Feb. 1913.

## 123. JAMIDES AMARANGE H. H. Druce.

*Jamides amarange* H. H. Druce, *P.Z.S.*, 1891, p. 366, pl. xxxi., ff. 20, 21 (Solomon Islds.).

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

## 124. CATACHRYSOPS STRABO (Fabr.)

*Hesperia strabo* Fabricius, *Ent. Syst.* iii. 1., p. 287, No. 101 (1793) (Australia).

1 ♂ Base Camp, March 1913.



## 125. LAMPIDES AETHERIALIS Butl.

*Lampides aetherialis* Butler, *Ann. Mag. Nat. Hist.* (5), xiii. p. 195 (1884) (Ké Dulan).

1 ♂ 4 ♀♀ Base Camp, Nov. 1912—March 1913; 1 ♀ Canoe Camp, Nov. 1912; 1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

## 126. PEPLIPHORUS NEMOPHILA MINOR subsp. nov.

♂. Differs from *n. nemophila* Butl. in its much smaller size.

Expanse 36 mm. Length of forewing 16.5 mm.

2 ♂♂ Base Camp, Nov. 1912—March 1913.

## 127. PEPLIPHORUS ALENAS (Feld.)

*Lycæna alenas* Felder, *Reise Novara, Lep.*, ii. p. 268, No. 325, t. 33, ff. 15, 16 (1865) (Mysol).

1 ♂ Base Camp, Dec. 1912; 1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 128. PEPLIPHORUS HYLAS (Cram.)

*Papilio hylas* Cramer, *Pap. Exot.*, iv. t. 363, fig. E, F (1782) (Amboina).

2 ♂♂ 2 ♀♀ Base Camp, Nov. 1912—March 1913; 2 ♀♀ Canoe Camp, Nov. 1912; 8 ♂♂ 4 ♀♀ Utakwa River, 2500–3000 ft., Feb. 1913.

## 129. PEPLIPHORUS NEMOPHILA (Butl.)

*Danis nemophila* Butler, *Ann. Mag. Nat. Hist.* (4), xviii. p. 245, No. 22 (1876) (New Guinea).

1 ♂ Base Camp, Nov.—Dec. 1912; 1 ♂ Canoe Camp, Nov. 1912; 5 ♂♂ 5 ♀♀ Utakwa River, 2500–3000 ft., Feb. 1913.

## 130. NACADUBA PACTOLUS (Feld.)

*Lycæna pactolus* Felder, *Sitzb. Ak. Wiss. Wien. Math. Nat. Cl.* xl. p. 457, No. 33 (1860) (Amboina).

Is darker than type, but we must await more material to decide if it is a new local form.

1 ♂ Base Camp, Dec. 1912.

## 131. NACADUBA ANCYRA (Feld.)

*Lycæna ancyra* Felder, *Sitzb. Ak. Wiss. Wien. Math. Nat. Cl.* xl. p. 457, No. 36 (1860) (Amboina).

1 ♂ 1 ♀ Base Camp, March 1913.

## 132. NACADUBA DION (God.)

*Polyommatus dion* Godart, *Enc. Méth.*, ix. p. 679, No. 491 (1823) (Australasia).

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

133. *NACADUBA MEIRANGANUS* (Röb.)

*Plebeius meiranganus* Röber, *Iris*, i. p. 65, pl. 5, fig. 23, 25 (1885) (Aru).

1 ♂ 1 ♀ Base Camp, Nov. 1912—March 1913; 1 ♂ Canoe Camp, Nov. 1912.

134. *NACADUBA PROXIMA* sp. nov.

♂ Nearest to *atrata* Horsfield.

Differs on the *upperside* in being darker; the costal black margin of forewing is narrower, the terminal margin is broader; and on hindwing the margin is much narrower and the white submarginal line more distinct. *Below* the white bands are much more distinct, the marginal band has no black spots, and the submarginal band is NOT sinuous and has no black interspaces.

Expanse 33 mm. Length of forewing 15 mm.

2 ♂♂ Base Camp, Jan.—March 1913; 2 ♂♂ Canoe Camp, Nov.—Dec. 1912.

135. *NACADUBA SUBDUBIOSA* sp. nov.

♂. Differs from *dubiosa* Semper by its larger size and above by its grey-blue NOT reddish-violet colour. Below it differs in the brown-grey, not ash-grey ground colour, and the much narrower and almost obsolescent white lines; on the hindwing the two submarginal tornal spots are smaller.

Expanse 30 mm. Length of forewing 14 mm.

(Expanse of *N. dubiosa* 23–25 mm. Length of forewing 10–11 mm.)

1 ♂ Base Camp, Nov. 1912; 1 ♂ Canoe Camp, Dec. 1912; 1 ♂ Utakwa River, 4000–6000 ft., Dec. 1912—Jan. 1913.

136. *NACADUBA TRISTIS* sp. nov.

♂. *Above*, entirely leaden-violet-blue, fringe black, tail on hindwing long. *Below*, forewing brownish mouse-grey, pale bands fairly distinct, a submarginal and marginal row of large dark grey spots. Hindwing: the pale bands are much more distinct than on forewing and distinctly white, a black and orange tornal spot and a much larger similar one on vein 1.

Expanse 37 mm. Length of forewing 14 mm.

1 ♂ Base Camp, March 1913.

137. *NACADUBA ARGIOLOIDES* sp. nov.

♂. *Above*, bright lavender blue, and has almost the exact appearance of our European species *argiolus*. Forewing, costal edge black, fringe black, passing into greyish outwardly, tornal  $\frac{1}{3}$  of inner margin white. Hindwing, marginal edge black, fringe greyish white. *Below*, ash-grey, 2 whitish lines across cell, 2 shorter ones beyond cell, and 2 spirally entwined postdiscal ones, a submarginal row of sagittate larger spots

and a marginal row of round dots darker grey. Hindwing has full number of light bands, 2 black white-encircled spots on costa, 2 on abdominal edge, and 3 on tornal half of margin.

Expanse 30 mm. Length of forewing 13.5 mm.

2 ♂♂ Utakwa River, 4000–6000 ft., Dec. 1912—Jan. 1913.

### 138. CANDALIDES NEURAPACUNA B.-Baker.

*Candalides neurapacuna* Bethune-Baker, *P.Z.S.* 1908, vol. i. p. 121, pl. ix., f. 10 (British New Guinea).

- This species was described from a single ♂ in the Tring Museum.

♀. Forewing, basal  $\frac{2}{3}$  leaden bluish grey except costal area, where only basal  $\frac{1}{3}$  is grey; above veins 2 and 3 and near apex of cell are whitish patches; outer  $\frac{1}{3}$  of wing and  $\frac{2}{3}$  of costal area black. Hindwing leaden bluish grey, outer half above vein 3 white; fringe black. Underside as in ♂, but reddish brown lines and spots less strongly marked.

Expanse 40 mm. Length of forewing 18 mm.

2 ♀♀ Utakwa River and Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

### 139. CANDALIDES ARGENTEUS sp. nov.

♂. Basal half of forewing except costal area silvery metallic blue, apical half and costal area black-brown. Hindwing, basal  $\frac{4}{5}$  silvery metallic blue, outer  $\frac{1}{5}$ , abdominal area, and nervures black-brown. Underside white, fringe brown.

Expanse 29 mm. Length of forewing 13 mm.

1 ♂ Base Camp, March 1913.

### 140. PHILIRIS AURELIA (Gr. Smith).

*Holochila aurelia* Grose Smith, *Rhop. Ex.*, vol. iii., *Or. Lyc.*, pl. xviii., ff. 1, 2, 3 (1897–1902) (Aru Is.).

1 ♀ Canoe Camp, Nov. 1912.

### 141. PHILIRIS AURELIOIDES sp. nov.

♂. Larger than *aurelia*, with much more pointed wings, fringe entirely white, violet above more intense. Below uniform mouse-grey, not brown.

♀. Has wings longer and narrower, blue more intense, and fringe whiter.

Expanse 38 mm. Length of forewing 17 mm.

1 ♂ 2 ♀♀ Base Camp, March 1913.

### 142. PHILIRIS DUBITATA (Gr. Smith).

*Holochila dubitata* Grose Smith, *Rhop. Ex.*, vol. iii., *Or. Lyc.*, pl. xviii., ff. 4, 5 (1897–1902) (Milne Bay).

3 ♂♂ 3 ♀♀ Base Camp, Jan.—March 1913 : 1 ♀ Canoe Camp, Dec. 1912 : 1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

143. *PHILIRIS PRATTI* (B.-Baker).

*Candalides pratti* Bethune-Baker, *P.Z.S.*, 1908, vol. i. p. 122, pl. viii., f. 13 (Fak-Fak).

2 ♂♂ 1 ♀ Base Camp, Nov. 1912—March 1913.

144. *PHILIRIS INTENSA* (Butl.)

*Holochila intensa* Butler, *Ann. Mag. Nat. Hist.* (4), xviii. p. 245, No. 20 (1876) (New Guinea).

3 ♂♂ 1 ♀ Base Camp, Jan.—March 1913.

145. *HOLOCHILA DIMORPHA* (Röb.)

*Plebejus dimorphus* Röber, *Iris*, i. p. 62, pl. 4, fig. 27, 28 (1885) (Eastern New Guinea).

2 ♂♂ 1 ♀ Base Camp, Dec. 1912—March 1913; 2 ♀♀ Utaqua River, 2500–3000 ft., Dec. 1912—Feb. 1913.

146. *PARCLODINA AROA* B.-Baker.

*Parclodina aroa* Bethune-Baker, *Nov. Zool.*, xi. p. 368 (1904) (Brit. New Guinea).

2 ♂♂ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

147. *WAIGEUM CORUSCANS* Gr. Smith.

*Waigeum coruscans* Grose Smith, *Nov. Zool.*, vol. iv. p. 367 (1897) (Kapaur).

This species was described from 2 ♂♂ captured at Kapaur by W. Doherty. Differs from ♂ by the elongated wings. Forewing sooty brown-black, on the disc above each vein from 1 to 4 an elongated creamy white patch, the 2 uppermost smallest. Hindwing sooty brown-black, a creamy white, narrow, oblique band crosses wing just before middle of cell from costa to abdominal margin. Below all the glittering blue bands are much more extensive and broader than in the ♂.

Expanse 48 mm. Length of forewing 22 mm.

1 ♀ Utaqua River, 2500–3000 ft., Feb. 1913.

148. *THYSONOTIS WOLLASTONI* sp. nov.

♂. Nearest to *helga* Gr. Smith *above*, but forewing shows no white, and on hindwing the white band is much narrower and suffused with blue, so that in some specimens only white spots remain at costa and abdominal margin. The black outer margin is much more extended and very wide between tornus and vein 3, abruptly becoming very narrow at vein 4.

*Below* the metallic markings are blue, not green, on forewing the subcostal metallic band is double as wide as in *helga* to just beyond apex of cell, when it is abruptly narrowed

to half its width. On the hindwing there is a broad blue band distad as well as basad of the subbasal black band.

Expanse 44 mm. Length of forewing 20.5 mm.

2 ♂♂ Canoe Camp, Nov. 1912 : 1 ♂ Utakwa River, sea level, Nov. 1912.

149. *THYSONOTIS PHROSO CONCOLOR* subsp. nov.

♂. Differs from *p. phroso* in its larger size and the uniform blue of the forewings and absence of metallic green on fore- and hindwings.

♀ has the blue at base of wings greyish lavender blue, NOT bright blue.

Expanse, ♂ 54 mm., ♀ 48 mm. Length of forewing, ♂ 25 mm., ♀ 22 mm.

1 ♂, 1 ♀ Base Camp, Nov. 1912—Jan. 1913 ; 2 ♂♂ Canoe Camp, Nov. 1912 ; 1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

150. *THYSONOTIS HELGA* Gr. Smith.

*Thysonotis helga* Grose Smith, *Nov. Zool.*, vol. v. p. 105 (1898) (Jobi Is.).

1 ♂ Base Camp, Nov.—Dec. 1912.

151. *THYSONOTIS APOLLONIUS* (Feld.)

*Lycaena apollonius* Felder, *Reise Novara, Lep.*, ii. p. 265, No. 317, t. 33, f. 3 (1865) (New Guinea).

3 ♂♂ Base Camp, Nov. 1912—Jan. 1913 : 1 ♂ 2 ♀♀ Canoe Camp, Nov. 1912 ; 2 ♂♂ Utakwa River, 2500–3000 ft., Feb. 1913.

152. *THYSONOTIS EPICORITUS* (Boisd.)

*Damias epicoritus* Boisd., *Voy. Astrol., Lép.*, p. 67 (1832) (New Guinea).

Kirby in his *Synonymic Catalogue* places this as identical with *cyanea* Cram. from Amboina, but I think wrongly.

1 ♂ Canoe Camp, Nov. 1912.

153. *THYSONOTIS SPERCHIUS* Feld.

*Thysonotis sperchius* Felder, *Wien. Ent. Mon.*, iv. p. 245, No. 93, t. 3, f. 4 (1860) (New Guinea).

1 ♀ Canoe Camp, Nov. 1912.

154. *THYSONOTIS CEPHEIS* H. H. Druce.

*Thysonotis cepheis* H. H. Druce, *P.Z.S.*, 1891, p. 364, pl. xxxii., ff. 1, 2 (Solomon Islds.).

1 ♂ Base Camp, Nov. 1912.

155. *THYSONOTIS PLOTINUS* Gr. Smith.

*Thysonotis plotinus* Grose Smith, *Rhop. Exot.*, ii., *Or. Lye.*, pl. viii., ff. 5, 6, 7, p. 44 (1892–1897) (Stephansort).

1 ♀ Canoe Camp, Nov. 1912 : 2 ♂♂ Utakwa River, sea level to 6000 ft., Nov. 1912—Jan. 1913 ; 2 ♀♀ Snow Mountains, 4000–6000 ft., Dec. 1912—Jan. 1913.



## 156. THYSONOTIS MINDORUS (Feld.)

*Lycaena mindora* Felder, *Reise Nov., Lep.*, ii. p. 277, No. 345, t. 34, f. 9. 10 (1865) (Mindoro).

1 ♂ Base Camp, Nov. 1912.

## 157. HYPOCHLOROSIS DANISOIDES (Nicév.)

*Hypolycaena danisoides* De Nicéville, *Journ. As. S. Beng.*, lxvi. 2, p. 558, No. 13, pl. 3, fig. 21 (1897) (Key).

1 ♀ Base Camp, March 1913.

## 158. PSEUDONOTIS HUMBOLDTI H. H. Druce.

*Pseudonotis humboldti* H. H. Druce, *Ann. Mag. Nat. Hist.* (6) xiii. p. 252 (1894) (New Guinea).

1 ♀ Base Camp, March 1913 ; 1 ♀ Canoe Camp, Dec. 1912.

## 159. DEUDORIX DIOVIS Hew.

*Deudorix diovis* Hewitson, *Ill. Diurn., Lep.*, p. 20, No. 9, t. 7, ff. 10, 12 (1863) (Australia).

1 ♀ Base Camp, Nov. 1912.

## 160. DEUDORIX MEEKI Rothschild.

*Deudorix meeki* Rothschild, *Ann. Mag. Nat. Hist.* (8) viii. p. 233, No. 1 (1911) (Oetakwa River).

2 ♂♂ Base Camp, Nov. 1912.

## 161. HYPOLYCAENA PSEUDOPHORBAS sp. nov.

♂. Nearest to *phorbas* Fabr., but much deeper blue.

Forewing shining indigo blue except outer  $\frac{1}{4}$ , which is black with paler whitish fringe ; a large round discal patch and nervures also black. Hindwing shining indigo blue between veins 2 and 6, rest of wing and broad margin sooty grey black, fringe white, tails black and white, 2 ocellate velvety black spots, 1 at tornus and 1 above vein 2. ♀ similar but much duller ; ocellate spots on hindwing surrounded with greyish white rings and an orange spot in tornal one. *Below*, ♂ differs from *phorbas* in having all the bands very distinctly marked and edged with white ; ♀ has underside much browner and postdiscal band orange wood-brown.

Expanse 38 mm. Length of forewing 17 mm.

1 ♂ 1 ♀ Base Camp, March 1913.

## 162. HYPOLYCAENA PHORBANTA sp. nov.

♀. Resembles *phorbas* ♀, but much larger and has no white on hindwing.

*Above*, forewing greyish umber brown, a somewhat round white discal patch between

vein 4 and fold above vein 1. Hindwing paler grey brown with black marginal spots above veins 2 and 3, and an orange dot at tornus. *Below*, it is much whiter than *phorbas*, and on forewing the postdiscal band is sharply angled at vein 2, bands brown grey.

Expanse 44 mm. Length of forewing 20 mm.

1 ♀ Base Camp, March 1913.

#### 163. PSEUDODIPSAS EONE Feld.

*Pseudodipsas conc* Felder, *Wien. Ent. Mon.*, iv. p. 243, No. 89 (1860) (Aru).

5 ♂♂ 1 ♀ Base Camp, Nov. 1912—March 1913; 2 ♀♀ Canoe Camp, Nov. 1912; 3 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912.

It is remarkable that no ♂♂ were got except at the Base Camp.

#### 164. MILETUS REX (Boisd.)

*Simacthus rex* Boisduval, *Voy. Astrol., Lép.*, p. 72 (1832) (New Guinea).

18 ♂♂ 9 ♀♀ Base Camp, Dec. 1912—March 1913; 1 ♀ Canoe Camp, Nov. 1912; 2 ♂♂ 1 ♀ Utakwa River, 2500–6000 ft., Dec. 1912—Jan. 1913.

#### 165. MILETUS APELLES MAJOR subsp. nov.

♂ ♀. Differs from *a. apelles* Fabr. by being  $\frac{1}{3}$  larger and having all colours brighter and more intense; the markings on the underside are also more strongly defined.

Expanse 46 mm. Length of forewing 21 mm.

5 ♂♂ 1 ♀ Base Camp, Nov. 1912—Jan. 1913; 3 ♂♂ 3 ♀♀ Canoe Camp, Nov. 1913; 1 ♂ (type) Utakwa River, 2500–3000 ft., Feb. 1913.

#### 166. MILETUS STOTHARTI sp. nov.

♂. *Above*, forewing glittering purplish blue except costal area and apical  $\frac{1}{3}$ , which are black. Hindwing glittering purplish blue, costal area and narrow margin black, abdominal area sooty black. *Below*, forewing basal  $\frac{2}{3}$  orange buff above vein 1, buffish grey below it; a brick-red broad streak below median fold from base to middle of wing; outer  $\frac{1}{3}$  rufous brown with a postdiscal oblique row of 4 silver spots and a submarginal row of small black spots edged outwardly with silver. Hindwing dark rufous chestnut above vein 7 basal half of wing obliquely buffy orange with brick-red basal patch, a postdiscal brownish buff band, and a similar antemedian one from abdominal margin to vein 3; 4 irregular zigzag discal lines, and a regular submarginal line bright silver.

Expanse 36 mm. Length of forewing 16 mm.

1 ♂ Canoe Camp, Nov. 1912.

## 167. CURETIS LIMBATUS sp. nov.

♂. Resembles *thetys* Drury, but larger, and has a broad black border to hindwing, and black area of forewing is broader. ♀ differs from *thetys* by its much larger size and more sharply defined white discal areas above, which are also purer white.

Expanse, ♂♀ 50 mm. Length of forewing, ♂♀ 22.5 mm.

4 ♂♂ 1 ♀ Base Camp, Nov. 1912—March 1913; 1 ♂ 1 ♀ Canoe Camp, Nov. 1912; 1 ♂ 1 ♀ Utaqua River, 2500–3000 ft., Dec. 1912.

## 168. ARHOPALA HELIUS (Cram.)

*Papilio helius* Cramer, *Pap. Erot.* iii. t. 201, ff. F, G. (1782) (Amboina).

12 ♂♂ Base Camp, Nov. 1912—March 1913; 5 ♂♂ Canoe Camp, Nov. 1912; 3 ♂♂ Utaqua River, 2500–3000 ft., Feb. 1913.

## 169. ARHOPALA AEXONE (Hew.)

*Amblypodia aexone* Hewitson, *Illustr. Diurn. Lep.*, p. 5, No. 15, t. 3, ff. 20, 24 (1863) (Waigiu).

1 ♂ Base Camp, March 1913; 1 ♂ Canoe Camp, Nov. 1912.

## 170. ARHOPALA AXIOTHEA (Hew.)

*Amblypodia ariotheta* Hewitson, *Illustr. Diurn. Lep.*, p. 7, No. 21, t. 2, ff. 10, 11 (1863) (New Guinea).

1 ♂ Base Camp, Jan. 1913.

## 171. ARHOPALA HELIANTHES Gr. Smith.

*Arhopala helianthes* Grose Smith, *Rhop. Erot.* iii., *Or. Lyc.*, xxv., ff. 5, 6, 7, p. 11 (1902) (Milne Bay).

1 ♀ Base Camp, Nov. 1912.

## 172. ARHOPALA ALCESTIS Gr. Smith.

*Arhopala alceste* Grose Smith, *Rhop. Erot.* iii., *Or. Lyc.*, xxv., f. 1, p. 9 (1902) (Milne Bay).

2 ♂♂ Base Camp, Nov. 1912.

## 173. ARHOPALA MEANDER Boisd.

*Arhopala meander* Boisduval, *Voy. Astrol., Léop.*, p. 76 (1832) (New Guinea, Aru).

5 ♂♂ Base Camp, March 1913.

## 174. ARHOPALA HERCULES (Hew.)

*Amblypodia hercules* Hewitson, *Cat. Lyc. Brit. Mus.*, p. 3, No. 14, t. 8, ff. 92, 93 (1862) (Java).

6 ♂♂ Base Camp, Nov. 1912—Jan. 1913; 1 ♂ Utaqua River, 2500–3000 ft., Feb. 1913.

175. *ARHOPALA RESTRICTA* sp. nov.

♂. *Above*, brown-black, forewings violet-blue on basal  $\frac{3}{4}$  above vein 1 to below vein 5; cell except upper and outer  $\frac{1}{4}$  also blue. *Below*, wings whitish, markings nearest to *alcestitis*, but the bands of spots on forewing more distinctly separated and more sharply edged with white; on hindwing the markings more or less obsolete except 4 spots and patches on and below costal area.

Expanse 48 mm. Length of forewing 22 mm.

1 ♂ Base Camp, Dec. 1912.

## GRYPOCERA

## HESPERIIDAE

33 species are represented in the collection, of which 19 species and 2 subspecies are new to science.

## HESPERIINAE

There are 12 species of *Hesperinae*, of which 5 species and 1 subspecies are new.

176. *TELEGONUS AENESIUS* (Hew.)

*Eudamus aenesius* Hewitson, *Ann. Mag. Nat. Hist.* (4) xviii. p. 353 (1876) (Dorey).

1 ♂ Base Camp, Nov. 1912.

177. *TELEGONUS MIGONITIS* (Hew.)

*Eudamus migonitis* Hewitson, *Ann. Mag. Nat. Hist.* (4) xviii. p. 352 (1876) (Mysol).

1 ♀ Canoe Camp, Nov. 1912.

178. *ORTHOPHOETUS STOTHARTI* sp. nov.

♀. Antennae black-brown, ringed with rufous; head, thorax and abdomen dark greyish earth-brown. *Forewing*, deep blackish chocolate, a satiny snow-white band across disc consisting of 3 quadrate patches joined, the first 2 smaller; the first is at end of cell, the second above vein 3, and the largest above vein 2; a smaller similar sub-apical spot on vein 5. *Hindwing* dark chocolate, a median dark buff spot.

Expanse 65 mm. Length of forewing 30 mm.

1 ♀ Base Camp, March 1913.

179. *CASYAPA CRITOMEDIA LATIFASCIA* subsp. nov.

♂. Differs from *c. critomedia* on the hindwing in the orange band being shorter and

much wider, reaching only to vein 5 INSTEAD of vein 6 and extending outwards to the margin.

♀ similar, but larger.

3 ♂♂ Base Camp, Nov. 1912—March 1913; 1 ♀ Utaqua River, 3000 ft., Jan. 1913.

180. *CASYAPA OETAKWENSIS* sp. nov.

♀. Antennae black-brown, apical half before club ringed with rufous; head, thorax, and abdomen chocolate wood-brown. *Forewing* dark chocolate wood-brown; a broad buffy yellow oblique band reaching from costa across apical  $\frac{1}{4}$  of cell almost to tornus; this band is quite straight on its inner edge till vein 2, where it is strongly excised rectangularly to tornus.

*Hindwing* dark chocolate wood-brown.

Expanse 63 mm. Length of forewing 29 mm.

1 ♀ Utaqua River, 2500–3000 ft., Feb. 1913.

181. *CASYAPA CERINTHUS* (Feld.)

*Chaetocneme cerinthus* Felder, *Sitz. Ak. Wiss. Math. Nat. Cl.*, xl. p. 460, No. 47 (1860) (Amboina).

6 ♂♂ Base Camp, Nov. 1912—March 1913; 3 ♂♂ Canoe Camp, Nov.—Dec. 1912.

182. *CELAENORRHINUS KLOSSI* sp. nov.

♂. Antennae black; head, thorax and abdomen black-brown, with a slight chocolate wash. Wing black-brown with chocolate wash; forewing with broad oblique transverse satiny snow-white band arising at costa, filling outer half of cell and reaching vein 1 before tornus, a white postmedian dot above veins 4 and 7.—♀ similar.

Expanse 49 mm. Length of forewing 23 mm.

3 ♂♂ 3 ♀♀ Base Camp, Nov.—Dec. 1912; 5 ♂♂ Utaqua River, sea level to 6000 ft., Nov. 1912—Jan. 1913; 1 ♂ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

183. *CELAENORRHINUS AFFINIS* sp. nov.

♂. Very similar to *C. klossi*, but larger and the hindwings rounder.

Differs by the oblique white band of forewing being strongly angled inwards below vein 2 on inner side, and in there being a serpentine band of postmedian white dots in place of the two single ones.—♀ larger.

Expanse, ♂ 53 mm., ♀ 61 mm. Length of forewing, ♂ 24 mm., ♀ 28 mm.

11 ♂♂ 5 ♀♀ Base Camp, Nov. 1912—March 1913.

184. *TAGIADES ANTIPODES* (Guér.)

*Hesperia antipodes* Guérin, *Voy. Coq.*, ii., tab. 18, fig. 6 (1829) (New Guinea).

It is strange that Guérin's figure of this species has been entirely overlooked both by Watson and Mabille.

1 ♂ Base Camp, Jan. 1913.



## 185. TAGIADES KORELA LOUISA Swinh.

*Tagiades louisa* Swinhoe, *Ann. Mag. Nat. Hist.* (7) xx. p. 430 (1907) (Rossel Isld.).

2 ♂♂ Base Camp, Nov. 1912; 2 ♀♀ Canoe Camp, Dec. 1912.

## 186. TAGIADES MARTINUS Plötz.

*Tagiades martinus* Plötz, *Jahrb. Nass. Ver. Nat.*, xxxvii. p. 47, No. 32 (1884) (Philippines).

1 ♂ 1 ♀ Base Camp, Nov. 1912; 1 ♀ Utaqua River, 2500–3000 ft., Feb. 1913.

## 187. TAGIADES PERSIMILIS sp. nov.

♂. Very similar to *martinus*, but smaller and darker. The white band on the hindwing is also much narrower.—♀ similar, but browner in colour.

Expanse 44–47 mm. Length of forewing 20–21 mm.

1 ♂ 1 ♀ Base Camp, Nov. 1912—March 1913; 1 ♂ (type) Utaqua River, sea level, Nov. 1912.

## PAMPHILINAE

There are 20 species in the collection, of which 9 are new species and 2 new subspecies.

## 188. TELESTO WOLLASTONI sp. nov.

♂. Antennae black, club white below; head, thorax and abdomen deep blackish chocolate brown. Wings *above*, deep blackish chocolate brown with white fringe. Wings *below*, forewing basal half obliquely, except costa, chocolate brown strongly glossed with purple, apical half and costa glossy steel green washed with blue; hindwing glossy steel green with 3 whitish blue postdiscal spots.

Expanse 48 mm. Length of forewing 21 mm.

1 ♂ Base Camp, March 1913.

## 189. TELESTO BICOLOR sp. nov.

♂. Uniform brown-black above and below; hindwings with broad white fringe.

Expanse 33–40 mm. Length of forewing 15–18 mm.

1 ♂ (type) Snow Mountains, 4000–6000 ft., Jan.—Feb. 1913; 1 ♂ Utaqua River, 3000 ft., Jan. 1913.

## 190. PADRAONA TABLA Swinh.

*Padraona tabla* Swinhoe, *Ann. Mag. Nat. Hist.* (7) xvi. p. 616 (1905) (New Guinea).

This species appears to vary considerably in the amount of fulvous in and above the cell of the forewings and along vein 1.

2 ♂♂ 1 ♀ Base Camp, March 1913; 1 ♀ Canoe Camp, Nov. 1912; 1 ♀ Utaqua River, 2500-3000 ft., Feb. 1913.

191. *PADRAONA INFRALUTEA* sp. nov.

♂. Differs from *P. tabla* in its smaller size, and *above* in the median fulvous band being more excised. *Below* it is very distinct: costal  $\frac{1}{3}$  of forewing and apical area to beyond vein 4 orange fulvous with scattered black dots, rest of forewing sooty black with discal oblique fulvous buff bar. Hindwing orange fulvous splashed with sooty on abdominal area and with 2 transverse oblique discal rows of sooty dots.

Expanse 36 mm. Length of forewing 16 mm.

1 ♂ Base Camp, March 1913.

192. *PADRAONA FASCIATA* sp. nov.

♂. *Above*, antennae rufous above, fulvous yellow below; palpi buff; head black, frons with 2 yellowish spots, vertex with 3 yellow lines; thorax black with fulvous hairs; abdomen blackish with fulvous hairs and 3 pairs of orange spots on last 3 segments; claspers orange. Forewing black, cell and basal half of costal region orange, an orange postcellular spot and an oblique postdiscal orange band from vein 7 to vein 1; a greenish orange line above and below vein 1, that above being shortest. Hindwing black, an orange patch in cell, an oblique orange discal broad band from which an orange streak runs to the base of wing; margin orange.

*Below*, forewing orange, a black line in cell, a broad oblique transverse black discal band forked above median vein, a black submarginal band broadest at tornus running to a point at vein 7. Hindwing orange with a network of dusky lines in basal half and a zigzag dusky submarginal line.—♀ similar.

Expanse 23-33 mm. Length of forewing 10-15 mm.

14 ♂♂ 2 ♀♀ Base Camp, Nov. 1912—March 1913; 1 ♂ Canoe Camp, Nov. 1912; 1 ♂ Utaqua River, sea level, Nov. 1912; 9 ♂♂ 7 ♀♀ Snow Mts., 4000-6000 ft., Jan.—Feb. 1913; 1 ♂ 1 ♀ Carstensz Peak, 5000-10,000 ft., Feb.—March 1913.

193. *PADRAONA SIMILLIMA* sp. nov.

♀. *Above*, similar to *fasciata*, but the orange in cell of forewing is reduced to a band across apex, on hindwing discal band is broader and less excised. *Below*, forewing differs from *fasciata* as above, but hindwing is entirely fuscous olive with broad oblique orange discal band.

Expanse 30 mm. Length of forewing 13 mm.

1 ♀ Base Camp, March 1913.

194. *TELICOTA EUROTAS* (Feld.)

*Pamphila eurtas* Felder, *Sitzb. Ak. Wiss. Math. Nat. Cl.*, xl. p. 461, No. 52 (1860) (Amboina).

1 ♂ Base Camp, March 1913.

## 195. TELICOTA KLOSSI sp. nov.

♂. Antennae black above, rufous orange below; head and thorax greenish orange fulvous; abdomen greenish orange fulvous ringed with buffy orange. *Forewing* brown-black, cell and costal area to end of cell fulvous orange, a fulvous orange postcellular spot, an oblique median band of androconia from vein 1 to vein 4, beyond which is an oblique postmedian fulvous orange band from vein 1 to vein 6 excised inwardly between 4 and 6, a greenish fulvous orange band each side of basal half of vein 1. *Hindwing* brown-black, basal  $\frac{2}{3}$  of cell fulvous orange, a broad discal fulvous orange band reaches from vein 1 to vein 5 which shoots out along vein 1 to base and almost to termen. Fringe of both wings fulvous orange.—♀ similar.

Expanse 38 mm. Length of forewing 17 mm.

4 ♂♂ Base Camp, Nov. 1912—March 1913 (Type Nov. 1912); 1 ♂ Canoe Camp, Dec. 1912; 3 ♂♂ 4 ♀♀ Snow Mountains, 4000–6000 ft., Jan.—Feb. 1913.

## 196. TELICOTA GERMANA sp. nov.

♂. Similar to *T. klossi*, but has basal half of cell black on forewings, and the discal band on hindwing much narrower and strongly excised along both edges.

Expanse 33 mm. Length of forewing 15 mm.

7 ♂♂ Snow Mountains, 4000–6000 ft., Jan.—Feb. 1913.

## 197. TELICOTA MOOREI sp. nov.

♂. Nearest to *T. bambusae* Moore, but larger and with the apex of forewing and tornus of hindwing much more produced, making the wings more pointed and comparatively narrower. The bands and patches also are deep fulvous orange, not yellowish orange, and the postdiscal band does not join the costal orange area, there is less orange in cell and the space below has no orange. *Below*, the hindwings are entirely greenish fulvous orange and the discal band is much less distinct.

Expanse 42 mm. Length of forewing 19 mm.

(Expanse of *T. bambusae* 35 mm. Length of forewing 15.5 mm.)

1 ♂ Base Camp, March 1913.

## 198. TELICOTA AFFINIS sp. nov.

♂. Very similar to above, but minus the patch of androconia, and below it differs in having on the hindwings the discal band bordered on each side by a distinct line of connected black streaks.

Expanse 36 mm. Length of forewing 16 mm.

1 ♂ Base Camp, March 1913; 1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

## 199. TELICOTA TERNATENSIS NOVAEGUINEAE subsp. nov.

♂. Differs above by the bands of fulvous orange being more sharply defined, and below by the very strong reddish purple of hindwings.

1 ♂ Base Camp, Nov. 1912; 1 ♂ Utakwa River, sea level, Nov. 1912.

## 200. CORONE BASALIS sp. nov.

♂. *Above*, antennae black, underside of club fuscous grey; head black-brown; thorax brown, strongly glossed with iridescent green, outer half of patagia fulvous; abdomen black-brown, basal half clothed thickly with fulvous hairs. Forewing brown black, basal  $\frac{1}{3}$  fulvous washed with olive brown. Hindwing brown-black, basal  $\frac{1}{3}$  clothed with long olive fulvous hairs. *Below*, the wings are brown-black, basal  $\frac{1}{3}$  of costal area and a cellular band from subcosta to beyond vein 2 fulvous.

Expanse 48 mm. Length of forewing 22 mm.

1 ♂ Canoe Camp, Nov. 1912.

## 201. CORONE TENEBRICOSA Mab.

*Corone tenebricosa* Mabille, in Wytman, *Genera Insectorum*, Fascicle 17, p. 143, footnote 2 (1903) (New Guinea).

1 ♂ Base Camp, Nov.—Dec. 1912.

## 202. POLYTREMIS CONTIGUALIS sp. nov.

♀. Nearest to *P. contigua* Mab., but with much longer and narrower wings. *Above*, deep brown, basal half streaked with olive, fringe olive, 2 greenish yellow hyaline dots near apex of cell, 3 similar smaller dots half way between cell and apex of wing, 1 similar larger spot on vein 1, and 2 much larger, one on vein 2 and one on vein 3. Hindwing deep brown, lower  $\frac{2}{3}$  clothed with long olive hairs, a yellowish hyaline dot above vein 3. *Below*, forewing olive, except basal half, below costal half of cell hyaline spots as above. Hindwing olive.

Expanse 51 mm. Length of forewing 23 mm.

1 ♀ Base Camp, March 1913.

## 203. CARYTUS CAESINA (Hew.)

*Hesperia caesina* Hewitson, *Trans. Ent. Soc. Lond.*, Ser. iii., vol. ii. p. 490, No. 15 (1866) (Waigiou).

1 ♂ Base Camp, March 1913.

## 204. HASORA DOLESCHALII MAJOR subsp. nov.

♂. Differs by its larger size and more pointed forewing from *d. doleschalii*. The hindwing also has tornus more produced and margin beyond tornus more excised. *Above*, colour and distribution of colours almost the same. *Below*, the ground colour is much

more purple blue, less greenish; in the apical area the marking is very different, consisting of 2 bands on lines of bluish spots almost joined into a circle above vein 5, below which runs an irregular bluish shaded band to vein 2, whereas in *d. doleschalii* there are 2 bluish dots, and beyond them a more or less straight submarginal blue-shaded band to vein 2. The 2 blue spots on hindwing also are almost obsolete.

♀ larger and duller.

Expanse, ♂ 60 mm., ♀ 67 mm. Length of forewing, ♂ 27 mm., ♀ 30 mm.

(Expanse of *H. d. doleschalii*, ♂ 51 mm. Length of forewing, ♂ 23 mm.)

3 ♀♀ Base Camp, Dec. 1912; 1 ♂ Carstensz Peak, 5000-10,000 ft., Feb.—March 1913.

#### 205. HASORA INFERNALIS sp. nov.

♂. *Above*, similar to *doleschalii* but smaller, and the metallic base of wings entirely green on forewing, dull coppery red on hindwing and extending only half as far on to the wings. Thorax wholly metallic green with no blue; abdomen sooty black, glossed with green. *Below*, it is black, glossed with oil green and on disc of forewing with purple, 2 bluish dots on each side of vein 1, and a greenish postdiscal shady band and a similar one across cell; on hindwing a white marginal line from vein 4 to tornus.

♀ has the spots each side of vein 1 larger.

Expanse 48 mm. Length of forewing 22 mm.

1 ♀ Base Camp, Dec. 1912; 1 ♂ (type) Snow Mountains, 4000-6000 ft., Jan.—Feb. 1913.

#### 206. HASORA CELAENUS (Cram.)

*Papilio celaenus* Cramer, *Pap. Exot.*, iv. t. 393, A, B (1782) (Amboina).

2 ♂♂ Base Camp, Nov. 1912—Jan. 1913; 2 ♂♂ Utakwa River, sea level to 3000 ft., Nov. 1912—Feb. 1913.

#### 207. HASORA DISCOLOR (Feld.)

*Gonilaba discolor* Felder, *Wien. Ent. Mon.*, iii. p. 405, No. 50 (1859) (Java?).

2 ♂♂ Snow Mountains, 4000-6000 ft., Jan.—Feb. 1913.

#### 208. HASORA SIMILLIMA sp. nov.

♂. Differs from *discolor* by its much narrower, longer and more pointed forewings and the absence of the green discal band on the underside of forewings, which are purple brown, the apex oil green and a patch of Nile green in and beyond cell and a bare indication of subterminal line.

Expanse 57 mm. Length of forewing 26 mm.

1 ♂ Base Camp, Dec. 1912.



209. *HASORA SUBCAELESTIS* sp. nov.

♂. *Above*, blackish chocolate brown. *Below*, forewing lower half brown glossed with purple, upper half metallic Nile blue, darker near termen, a large spot in cell and a band of coalescent spots beyond the middle from costa to vein 2, black. Hindwing metallic Nile blue, a large spot in cell and an irregular postmedian band of spots black; a submarginal somewhat coalescent band of patches steel blue.

Expanse 57 mm. Length of forewing 25 mm.

1 ♂ Base Camp, Nov. 1912.

210. *HASORA POSTFASCIATA* sp. nov.

♂. *Above*, antennae very short black, club below pale testaceous; head, thorax and abdomen earth-brown. Forewing blackish chocolate brown, basal  $\frac{1}{4}$  suffused with wood-brown. Hindwing, basal  $\frac{2}{5}$  wood-brown passing gradually into the blackish chocolate brown of the outer  $\frac{3}{5}$ . *Below*, basal  $\frac{2}{3}$  of forewing, except costal area, black-brown; outer  $\frac{1}{3}$  and costal area earth-brown, a paler line separating the darker basal area. Hindwing dark brown with a brown-black tornal patch; a median very broad transverse band, narrowing at costa and tornus.

Expanse 59 mm. Length of forewing 27 mm.

1 ♂ Base Camp, Nov.—Dec. 1912; 1 ♂ Canoe Camp, Nov. 1912; 2 ♂♂ (type) Utakwa River, 2500–3000 ft., Feb. 1913.

## HETEROCERA

## SYNTOMIDAE

Of this family only 2 species were obtained, both well known.

211. *EUCHROMIA IRIA* (Boisd.)

*Glaucopis irius* Boisduval, *Voy. Astrolabe, Lép.*, p. 192, pl. 5, f. 8 (1832) (New Guinea).

1 ♀ Canoe Camp, Nov. 1912.

212. *EUCHROMIA CREUSA* (Linn.)

*Sphinx creusa* Linnaeus, *Syst. Nat.*, Edit. x., p. 494 (1758) (Amboina).

3 ♀♀ Base Camp, Nov.—Dec. 1912; 1 ♂ Canoe Camp, Nov. 1912; 3 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912—Feb. 1913.

## ARCTIADAE

Of this family Dr. Wollaston procured 44 species, of which 12 are new to science.

## NOLINAE

Of this subfamily 5 species are represented in the collection, 2 being new.

## 213. CELAMA INTERNELLA (Walk.)

*Pisara internella* Walker, *List Lep. Ins. Brit. Mus.*, xxxi. p. 245 (1861) (Sarawak).

1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912.

## 214. CELAMA ARGENTEA (Lucas).

*Sorocostia argentea* Lucas, *Proc. Linn. Soc. N.S.W.* (2), iv. p. 1076 (1890) (Queensland).

1 ♂ Canoe Camp, Dec. 1912.

## 215. CELAMA ROSEOLACTEA sp. nov.

♂. Antennae pale buff; head and thorax dull white, abdomen whitish grey. *Forewing* whitish grey irrorated with cinnamon rose, an oblique cinnamon brown cloudy band beyond middle and terminal  $\frac{1}{4}$  clouded with paler cinnamon brown. *Hindwing* pale whitish grey.

Expanse 16 mm. Length of forewing 7 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 216. CELAMA LEUCOSCOPULA Hmps.

*Celama leucoscopula* Hampson, *Ann. Mag. N. H.* (7), xix. p. 227 (1907) (Ceylon).

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

## 217. CELAMA IRRORATA sp. nov.

♀. Antennae brown-black; head and thorax white freckled with grey; abdomen grey, whitish above on 2 basal segments. *Forewing* white suffused and freckled with brownish grey, this colour forming more or less distinct dark areas near base, middle and submarginal portion of wing; 5 spots on costa, and a postmedian sinuate transverse line of spots black-brown. *Hindwing* greyish white.

Expanse 25 mm. Length of forewing 11 mm.

1 ♀ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

## LITHOSIANAE

Of this subfamily 39 species were obtained, 11 being new.

## 218. LAMBULA LANIAFERA Hmps.

*Lambula laniafera* Hampson, *Cat. Lep. Phal. Brit. Mus.*, vol. ii. p. 98, No. 173 (1900) (Kapaur).

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

## 219. LAMBULA BIFASCIATA (Rothsch.)

*Crambidia bifasciata* Rothschild, *Nov. Zool.*, xix. p. 219, No. 37 (1912) (New Guinea).

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

## 220. LAMBULA PUNCTIFER Hampsn.

*Lambula punctifer* Hampson, *Cat. Lep. Phal. Brit. Mus.*, vol. ii. p. 100, No. 179 (1900) (Kapaur).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 221. SCOLIACMA LIGNEOFUSCA (Rothsch.)

*Iema ligneofusca* Rothschild, *Nov. Zool.*, xix. p. 222, No. 54 (1912) (New Guinea).

1 ♀ Base Camp, March 1913.

## 222. SCOLIACMA HAMPSONI B.-Baker.

*Scoliacma hampsoni* Bethune-Baker, *Nov. Zool.*, xi. p. 417, pl. v., fig. 20, pl. vi., fig. 23 (1904) (New Guinea).

1 ♀ Base Camp, Dec. 1912 ; 1 ♀ Utakwa River, 3000 ft., Jan. 1913.

## 223. SCOLIACMA BRUNNEA Druce.

*Scoliacma brunnea* Druce, *Ann. Mag. Nat. Hist.* (7) iv. p. 201 (1899) (Port Moresby).

2 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

## 224. PSEUDILEMA OCHRACEA (B.-Baker.)

*Graphosia ochracea* Bethune-Baker, *Nov. Zool.*, xi. p. 415, pl. v., fig. 36 (1904) (New Guinea).

1 ♀ Canoe Camp, Dec. 1912 ; 1 ♂ Utakwa River, 4000–6000 ft., Dec. 1912—Jan. 1913.

## 225. CHRYSOSCOTA VAGIVITTA (Walk.)

*Lithosia vagivitta* Walker, *List Lep. Ins. Brit. Mus.*, xxxv. p. 1884 (1866) (Mysol).

1 ♀ Canoe Camp, Dec. 1912.

## 226. NISHADA IMPERVIA (Walk.)

*Lithosia impervia* Walker, *List Lep. Ins. Brit. Mus.*, xxxi. p. 230 (1864) (Ceram).

2 ♂♂ Base Camp, Jan.—March 1913 ; 2 ♂♂ Canoe Camp, Dec. 1912.

## 227. ILEMA BIPUNCTATA (Walk.)

*Lithosia bipunctata* Walker, *List Lep. Ins. Brit. Mus.*, xxxv. p. 1884 (1866) (New Guinea ♀, Mysol ♂).

1 ♂ Base Camp, Jan. 1913 ; 1 ♂ Canoe Camp, Dec. 1912.

## 228. GARUDINIA ALBOMACULATA (B.-Baker.)

*Chionacma albomaculata* Bethune-Baker, *Nov. Zool.*, xi. p. 422, pl. iv., fig. 35 (1904) (New Guinea).

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

229. *PADENIA UNIFASCIA* sp. nov.

♂. Antennae brown; head and tegulae white; rest of thorax brown; abdomen buff brown. *Forewing* white slightly washed with cream; a median transverse convex band and terminal margin brown, edge of costa buff brown. *Hindwing* cream yellow.

Expanse 20 mm. Length of forewing 8.5 mm.

2 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

230. *PARASCAPTIA TRIFASCIATA* (Rothsch.)

*Garulinia trifasciata* Rothschild, *Nov. Zool.*, xix. p. 234, No. 113 (1912) (New Guinea).

2 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

231. *PARASCAPTIA INSIGNIFICA* sp. nov.

♂. Antennae yellowish brown; head, thorax and abdomen cream white. *Forewing* cream white: 2 long spots on costa, a spot near base of vein 1, a postdiscal convex transverse line and a clouded patch at apex dull rust red. *Hindwing* cream white.

Expanse 18 mm. Length of forewing 8 mm.

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

232. *MACADUMA SORDIDESCENS* sp. nov.

♂. Antennae yellowish grey; head and thorax greyish white; abdomen clayish brown grey. *Forewing* dirty brownish earth-grey, greyish white on basal  $\frac{1}{3}$  of costal area; wing abruptly truncate at apical  $\frac{1}{3}$  of wing; outer margins and a spot on costa and 8 dots in various parts of wing umber brown. *Hindwing* dirty brownish earth-grey; margin umber brown.

Expanse 16 mm. Length of forewing 7 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

233. *MACADUMA UMBRINA* sp. nov.

♂. Antennae, head and thorax umber brown; abdomen dark greyish brown. *Forewing* umber brown; an almost median broad transverse line and some cloudings beyond dark brown. *Hindwing* dark greyish brown.

Expanse 18 mm. Length of forewing 8 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

234. *MACADUMA RECURVA* sp. nov.

♂. Antennae, head and thorax chocolate rufous brown; abdomen brownish wood-grey. *Forewing* chocolate rufous brown, a large paler patch above tornus; basal half

of costa produced into a large recurved lobe. *Hindwing* yellowish wood-grey, costal area much paler.

Expanse 16 mm. Length of forewing 7 mm.

2 ♂♂ Utakwa River, 2500–3000 ft., Feb. 1913.

235. *PHLOGOMERA BICOLOR* (Rothsch.)

*Lambula bicolor* Rothschild, *Nor. Zool.*, xix, p. 214, No. 8 (1912) (New Guinea).

1 ♂ Base Camp, Dec. 1912; 1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912.

236. *TAMPEA (OCROSIA) WOLLASTONI* sp. nov.

♀. Antennae deep brown; head and thorax dark chocolate freckled with bluish scales; abdomen dark brown, buffish at base. *Forewing* deep velvety chocolate freckled in patches with bluish scales, which scales also form two subterminal lines; ill-defined large patches in cellular region and beyond more rust-brown. wing beyond centre truncated. *Hindwing*, basal  $\frac{2}{5}$  dirty buff, outer  $\frac{3}{5}$  dark grey.

♂ larger, darker, forewing more truncated, and basal half dark buff.

Expanse, ♀ 20, ♂ 25 mm. Length of forewing, ♀ 8.5, ♂ 12.5 mm.

2 ♀♀ Canoe Camp, Dec. 1912; 1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

237. *CAPRIMIMA GERMANA* Rothsch.

*Caprimima germana* Rothschild, *Nor. Zool.*, xix, p. 241, No. 147 (1912) (New Guinea).

1 ♀ Snow Mountains, 4000–6000 ft., Jan.—Feb. 1913.

238. *CAPRIMIMA IMITATRIX* Rothsch.

*Caprimima imitatrix* Rothschild, l.c. No. 149 (New Guinea).

1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912.

239. *CAPRIMIMA ELEGANS* (Boisd.)

*Damias elegans* Boisduval, *Foy. Astrol., Lép.*, p. 259 (1832) (New Guinea).

1 ♀ Canoe Camp, Nov. 1912.

240. *CAPRIMIMA PERIMITATRIX* sp. nov.

♀. Similar to *imitatrix* Rothsch. Differs as follows: the white on tegulae is absent; on forewing the black margin and apex is narrower, the white antemedian band is much narrower and starts below subcostal vein; on hindwing the white patch is narrower and longer.

Expanse 24 mm. Length of forewing 10.5 mm.

1 ♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

241. *CHIONAEMA FULVIA TRIGONA* Rothsch.

*Chionaema fulvia trigona* Rothschild, *Nor. Zool.*, x, p. 312, No. 9 (1903) (New Guinea).

1 ♀ Canoe Camp, Nov. 1912; 1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.



242. *CHIONAEMA BRUNNEA* B.-Baker.

*Chionaema brunnea* Bethune-Baker, *Nov. Zool.*, vol. xi. p. 423 (1904) (Aroa River).

1 ♀ Canoe Camp, Dec. 1912.

243. *ZYGAENOSIA KLOSSI* sp. nov.

♀. In colour nearest to *sinapis* Rothschild, but has structural differences and is much larger. Antennae much longer, reaching beyond middle of costa, and the distal  $\frac{2}{3}$  with very long pectinations black; head, thorax, and abdomen mustard-orange. *Forewing* semihyaline mustard-orange slightly smoky in outer  $\frac{1}{3}$ ; costa and fringe black. *Hindwing*, basal  $\frac{2}{3}$  semihyaline mustard-orange, outer  $\frac{1}{3}$  semihyaline sooty black, fringe black.

Expanse 36 mm. Length of forewing 16 mm.

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

244. *CHRYASURA FLAVOPUNCTATA PUNCTATISSIMA* (Rothschild.)

*Asura flavopunctata punctatissima* Rothschild, *Nov. Zool.*, xx. p. 207 (1913) (New Guinea).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

245. *CHRYASURA WOLLASTONI* sp. nov.

♂. Antennae pectinated black; head canary yellow; thorax black-brown, basal  $\frac{1}{2}$  of patagia canary yellow; abdomen black-brown. *Forewing* blackish chocolate, a basal dot on costa, a large subbasal rounded patch from above subcostal vein to vein 1, a median spot on costa and one on vein 1 and 3 larger submarginal spots canary yellow, as are some indistinct postdiscal marks. *Hindwing* orange, abdominal margin and outer  $\frac{1}{3}$  black-brown. (I here append in a footnote the description of a still finer new species from Goodenough Island.\*)

Expanse 22 mm. Length of forewing 9.5 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

246. *ASURA DENTIFERA* Hampson.

*Asura dentifera* Hampson, *Cat. Lep. Phil. Brit. Mus.*, vol. ii., Addenda p. 564, pl. xxxv, f. 18 (1900) (Milne Bay).

1 ♀ Base Camp, March 1913.

\* *CHRYASURA MEEKI* sp. nov.

♂ ♀. Antennae black, head canary yellow; thorax and abdomen black-brown, basal  $\frac{1}{2}$  of patagia canary yellow. *Forewing* black-brown with traces of indistinct fulvous marks in outer half; a large canary yellow subbasal band  $\frac{1}{3}$  the width of the wing extends from costa to inner margin. *Hindwing* yellowish orange, abdominal, costal and outer margins black. Several of the ♀♀ have a row of large orange subterminal spots; these I call ab. *maculata* ab. nov.

Expanse, ♂ 22, ♀ 30 mm. Length of forewing, ♂ 10, ♀ 13 mm.

6 ♀♀ 1 ♂ Goodenough Island, D'Entrecasteaux Group, April 1913 (A. S. Meek).

247. *ASURA DENTIFEROIDES* sp. nov.

♀. Differs from *dentifera* in its larger size and in having a median transverse band joined by an oblique line to the baso-horizontal y-like mark.

Expanse, *dentifera* 20 mm., *dentiferoideis* 28 mm. Length of forewing, *dentifera* 9 mm., *dentiferoideis* 12.5 mm.

1 ♀ Base Camp, March 1913.

248. *ASURA PHRYCTOPA* (Meyr.)

*Calligenia phryctopa* Meyrick, *Trans. Ent. Soc. Lond.*, 1889, p. 462 (New Guinea).

1 ♂ Base Camp, Jan. 1913.

249. *ASURA RETICULATA* (Feld.)

*Cyme reticulata* Felder, *Sitzb. Akad. Wien.*, xliii. p. 36 (1861) (Amboina).

1 ♂ 3 ♀♀ Base Camp, Nov. 1912—Jan. 1913; 1 ♂ 12 ♀♀ Utaqua River, 2500–3000 ft., Jan.—Feb. 1913.

250. *ASURA XANTHERYTHRA* Hampson.

*Asura xantherythra* Hampson, *Cat. Lep. Phal. Brit. Mus.*, vol. ii., Addenda p. 563, pl. xxxv., f. 5 (1900) (Milne Bay).

1 ♀ Base Camp, Nov. 1912; 1 ♀ Canoe Camp, Dec. 1912; 1 ♀ Utaqua River, 3000 ft., Jan. 1913.

251. *ASURA PYRAULA* (Meyr.)

*Calligenia pyraula* Meyrick, *Pr. Linn. Soc. N.S.W.*, (2), i. p. 704 (1886) (Queensland).

1 ♀ Base Camp, March 1913; 1 ♀ Utaqua River, 2500–3000 ft., Dec. 1912.

252. *ASURA ROSACEA* B.-Baker.

*Asura rosacea* Bethune-Baker, *Nor. Zool.*, xi. p. 426 (1904) (New Guinea).

1 ♂ Base Camp, Nov. 1912; 2 ♂♂ Utaqua River, 2500–3000 ft., Dec. 1912—Jan. 1913.

253. *ASURA BIPLAGIATA* (Rothsch.)

*Mitochrista biplagiata* Rothschild, *Nor. Zool.*, xx. p. 216 (1913) (New Guinea).

1 ♂ 1 ♀ Base Camp, Nov.—Dec. 1912.

254. *CHAMAITA METAMELAENA* Hampson.

*Chamaita metamelaena* Hampson, *Cat. Lep. Phal. Brit. Mus.*, vol. ii., Addenda p. 565, pl. xxxv., f. 15 (1900) (Milne Bay).

1 ♂ Base Camp, Jan. 1913.

255. *EUGOA QUADRIPLAGIATA* sp. nov.

♀. Antennae yellow; head chocolate mauve, frons creamy white; thorax chocolate

mauve; abdomen buff. *Forewing* chocolate mauve; base of wing, 2 large median patches, one on vein 1, the other between costa and vein 3, and an indistinct wavy subterminal line white. *Hindwing* buff.

Expanse 30 mm. Length of forewing 13.5 mm.

1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912.

256. *TRISCHALIS SUBMARGINATA* sp. nov.

♂. Antennae cream-colour; head white; thorax and abdomen cream-colour. *Forewing* cream-colour with two obsolescent rusty transverse lines and a number of similar costal spots, a broad subterminal band narrowing to inner margin brown passing into rusty fulvous. *Hindwing* cream-colour, with broad, pale brownish grey margin.

Expanse 15 mm. Length of forewing 6.5 mm.

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

257. *POLIOSIA UMBRA* sp. nov.

♂. Uniform number brown-grey; forewing with subbasal, submedian and apical bands of darker grey spots.

Expanse 14 mm. Length of forewing 6 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

Besides these there are a number of specimens of *Lithosianae* which are unidentifiable.

ARCTIANAE

Dr. Wollaston procured 2 species of this subfamily.

258. *MAENAS AVOLA* (B.-Baker.)

*Spilosoma avola* Bethune-Baker, *Nov. Zool.*, xv. p. 190 (1908) (New Guinea).

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

259. *DIACRISIA ARCTICHROA* Druce.

*Diacrisia arctichroa* Druce, *Ann. Mag. N. H.* (8), 3, p. 347 (1909) (New Guinea).

1 ♂ Base Camp, Jan. 1913; 2 ♂♂ 1 ♀ Canoe Camp, Nov.—Dec. 1912.

AGARISTIDAE

Of this family 5 species are in the collection.

260. *DAMIAS VARIA EDUCTA* (Walk.)

*Burgena educta* Walker, *List Lep. Ins. Brit. Mus.*, xxxi. p. 56 (1864) (partim; Key).

2 ♀♀ Base Camp, Dec. 1912; 2 ♂♂ Utakwa River, 2500–3000 ft., Feb. 1913; 1 ♀ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

## 261. OPTHALMIS LINCEA LINCEA (Cram.)

*Geometra lincea* Cramer, *Pap. Erot.*, iii., pl. 228b (1779) (Amboina).

3 ♂♂ 4 ♀♀ Base Camp, Nov. 1912—March 1913 ; 1 ♀ Canoe Camp, Dec. 1912 ; 2 ♂♂ 1 ♀ Uta kwa River, 2500–3000 ft., Jan.—Feb. 1913.

## 262. ARGYROLEPIDIA FRACTUS (Rothsch.)

*Phalaenoides fractus* Rothschild, *Nov. Zool.*, vi. p. 432 (1899) (Kapaur).

1 ♀ Base Camp, March 1913.

## 263. ARGYROLEPIDIA AUREA FERVIDA Jord.

*Argyrolepidia aurea fervida* Jordan, *Seitz, Grossschm. der Erde*, Bd. 11, p. 24 (1912) (Oetakwa River).

1 ♀ Base Camp, Dec. 1912 ; 1 ♂ Canoe Camp, Nov. 1912 ; 2 ♀♀ Uta kwa River, 2500–3000 ft., Dec. 1912.

## 264. ARGYROLEPIDIA MEGISTO (Boisd.)

*Agarista megisto* Boisduval, *Voy. Astrolabe, Lép.*, p. 179, pl. v., f. 5 (1832) (Dorey).

Considering the great variability of this species, this series of 23 specimens is remarkably constant, 22 only differing inter se in the sharpness or otherwise of the grey nervular streaks ; the 23rd specimen stands half way between typical *megisto* and the form *neurogramma* Meyr.

16 ♂♂ 3 ♀♀ Base Camp, Nov. 1912—March 1913 ; 3 ♂♂ 1 ♀ Canoe Camp, Nov.—Dec. 1912.

## NOCTUIDAE

Of this family Dr. Wollaston obtained 111 species, of which 54 species and 6 sub-species are new.

## HADENINAE

There are 5 species of this subfamily in the collection, of which 2 are new.

## 265. ELUSA FURUNCULOIDES (Pag.)

*Callopietria furunculoides* Pagenstecher, in Chun, *Zoologica*, xxix. p. 71 (1900) (New Pomerania),

1 ♂ Base Camp, Dec. 1912 ; 3 ♀♀ Uta kwa River, 3000 ft., Jan. 1913.

## 266. ELUSA AFFINIS sp. nov.

♂. Antennae pectinated wood-brown ; head wood-brown ; thorax chocolate brown, abdomen wood-brown, a large maroon red tuft on 4th segment, anal tuft buff. *Fore-wing* blackish chocolate washed here and there with maroon ; a large apical patch a subcostal median spot and various large ill-defined spots along and below vein 1

cinnamon, the maroon is most conspicuous along vein 1. *Hindwing* satiny pale wood-brown, paler on basal half.

Expanse 30 mm. Length of forewing 13 mm.

1 ♂ Carstensz Peak, 5000-10,000 ft., Feb.—March 1913.

267. *CIRPHIS LEUCOSPHEA* B.-Baker.

*Cirphis leucospheia* Bethune-Baker, *Ann. Mag. N. H.* (7), xv. p. 196 (1905) (New Guinea).

1 ♂ Base Camp, Jan. 1913.

268. *CIRPHIS INSULARIS* (Butl.)

*Leucania insularis* Butler, *P.Z.S.*, p. 674 (1880) (Formosa).

1 ♀ Base Camp, March 1913.

269. *SIDERIDIS PSEUDOU* sp. nov.

♂. Nearest allied to *yu*. Differs in the ground colour of body and forewings being suffused with yellow, in the pale space occupying basal  $\frac{1}{2}$  of forewing above origin of vein 3 being much less defined and projecting along costa much further, in basal  $\frac{2}{3}$  of forewing being more or less entirely suffused with rufous chestnut, which colour is edged by an oblique postmedian line, while in *yu* this line is serpentine and crenulate. Hindwing sooty grey, NOT wood-brown.

Expanse 42 mm. Length of forewing 19 mm.

1 ♂ Carstensz Peak, 5000-10,000 ft., Feb.—March 1913.

ACRONYCTINAE

Of this subfamily the collection contains 7 species, of which 2 only are new.

270. *DIPTERYGIA KEBEAE* B.-Baker.

*Dipterygia kebae* Bethune-Baker, *Nor. Zool.*, xiii. p. 197, No. 14 (1906) (New Guinea).

1 ♀ Uta River, 3000 ft., Jan. 1913.

271. *ERIOPUS CYCLOPS* Hampson.

*Eriopus cyclops* Hampson, *Cat. Lep. Phal. B.M.*, vii. p. 547, pl. 121, fig. 3 (1908) (Trobriand, Fergusson).

1 ♂ Uta River, 2500-3000 ft., Dec. 1912.

272. *EUPLEXIA CONNEXA* Warr.

*Euplexia connexa* Warren, *Nor. Zool.*, xix. p. 25, No. 53 (1912) (New Guinea).

1 ♀ Carstensz Peak, 5000-10,000 ft., Feb.—March 1913.



## 273. EUPLEXIA INTERNIMARGINATA sp. nov.

♀. Differs from *dinawa* B.-Baker in the head being olive-buff not brownish olive, in the costal area being maroon without markings, *not* black-brown variegated with olive, the green terminal band does not stop short at tornus but is continued round below vein 1 to within  $\frac{1}{4}$  of the base of inner margin. From the lower end of the green cellular median bar to the postmedian line above vein 1 runs a brick-red oblique bar, which is *absent* in *dinawa*; a black-brown line separates fringe of forewing from green terminal band; this line is orange in *dinawa*.

Expanse 40 mm. Length of forewing 18 mm.

1 ♀ Carstensz Peak, 5000-10,000 ft., Feb.—March 1913.

## 274. SPODOPTERA PECTEN Guen.

*Spodoptera pecten* Guenée, *Noct.* i. p. 155, No. 247 (1852) (Java).

1 ♀ Base Camp, Jan. 1913; 1 ♂ 1 ♀ Utkwa River, 2500-3000 ft., Jan.—Feb. 1913.

## 275. ELYDRA SUBPARTITA (B.-Baker).

*Caradrina subpartita* Bethune-Baker, *Nor. Zool.*, xiii. p. 201, No. 27 (1906) (New Guinea).

1 ♂ Base Camp, Nov. 1912.

## 276. SESAMIA GRISESCENS Warr.

*Sesamia grisea* Warren, *Nor. Zool.*, xviii. p. 148, No. 22 (1911) (New Guinea).

1 ♀ Base Camp, Jan. 1913.

## 277. SESAMIA MELIANOIDES sp. nov.

♀. This insect has rather long narrow wings, and the costa of forewings is strongly arched so that it has a distinct appearance of *Meliana flammea*. Antennae, head and thorax pale fleshy cinnamon; abdomen greyer. *Forewing* divided obliquely horizontally by a dark shadow band from base to apex; upper half pale fleshy cinnamon, lower half washed with brown-grey. *Hindwing* pale greyish wood-brown.

Expanse 36 mm. Length of forewing 16 mm.

1 ♀ Base Camp, Jan. 1913.

## ERASTRIANAE

Dr. Wollaston sent 6 species of this subfamily, 4 of which are new.

## 278. CAUTAESCHRA FLAVESCENS sp. nov.

♀. Antennae brown; head and thorax buff; abdomen buffy grey. *Forewing* orange buff, a brown-black patch at base of costa, a rufous patch at centre of costa, and an

indistinct brown subapical spot on costa. *Hindwing* brown-grey; hair on abdominal area and fringe buffish.

Expanse 20 mm. Length of forewing 8.5 mm.

1 ♀ Uakwa River, 3000 ft., Jan. 1913.

279. *EUBLEMMA POSTORNALIS* sp. nov.

♀. Antennae, palpi, head and tegulae chestnut rufous; rest of thorax cinnamon grey; abdomen rufous cinnamon grey, posterior edges of segments narrowly ringed with cream-colour. *Forewing* cinnamon grey with a few scattered rufous scales; along costa and also below it in apical area are rufous streaks and spots, indistinct postdiscal and subterminal darker lines within which are minute rufous dots on the nervures; termen strongly excised, fringe suffused with rufous. *Hindwing* cinnamon grey with strongly excised margin; across disc and along margin are 3 rows of reddish dots; above tornus is a large black streak, above which towards centre of basal half of wing is a patch of reddish dots.

Expanse 23 mm. Length of forewing 10 mm.

1 ♀ Base Camp, March 1913.

280. *CORGATHA MINUTA* (B.-Baker).

*Capnodes minuta* Bethune-Baker, *Nov. Zool.* xiii. p. 284. No. 293 (1906) (New Guinea).

1 ♂ Uakwa River, 2500–3000 ft., Feb. 1913.

281. *CORGATHA CASTANEORUFA* sp. nov.

♀. Antennae, head, thorax and abdomen chocolate cinnamon. *Forewing* rufous-chocolate, antemedian and postmedian oblique white lines between which are 2 median black dots, a buffish grey apical patch. *Hindwing* sooty wood-grey washed with rufous cinnamon, fringe rufous cinnamon.

Expanse 30 mm. Length of forewing 13 mm.

1 ♀ Base Camp, Jan. 1913.

282. *AMYNA PUNCTUM* (Fabr.)

*Noctua punctum* Fabricius, *Ent. Syst.*, iii. 2, p. 34 (1794) (Ind. or.).

1 ♀ Base Camp, Jan. 1913.

283. *EUSTROTIA EUBLEMMIDES* sp. nov.

♂. Antennae pale grey-brown; head, thorax and abdomen dull whitish grey, anal tuft buff. *Forewing* white, apical  $\frac{1}{3}$  obliquely to tornus, rufous suffused with dark brown; a submedian broad transverse band joined to apical  $\frac{1}{3}$  by an oblique line grey-brown, a black dot in fork of oblique line, basal  $\frac{1}{3}$  of costa brown. *Hindwing* yellowish wood-grey with marginal darker edge.

Expanse 23 mm. Length of forewing 10 mm.

1 ♂ Base Camp, Dec. 1912; 1 ♂ (type) Carstensz Peak, 5000-10,000 ft., Feb.—March 1913.

#### STICTOPTERINAE

Of this subfamily only 1 species is in the collection.

#### 284. LOPHOTERA RUFA (B.-Baker.)

*Berresa rufa* Bethune-Baker, *Nov. Zool.*, xiii. p. 199, No. 20 (1906) (New Guinea).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

#### SARROTHRIPINAE

Of this subfamily also only 1 species was secured, and which is new.

#### 285. RISIBA VARIEGATA sp. nov.

♀. Antennae and palpi pale greyish brown; head greenish cream-colour; thorax and abdomen silvery whitish grey. *Forewing* greyish white, a broad oblique subbasal brown shadow band suffused outwardly with greenish yellow, a double line runs up from this at inner margin obliquely to apex, below which along the line are two large black patches, the triangular median  $\frac{1}{3}$  of wing and the area outside the oblique double line are much clouded with pale brown and greenish yellow, and contain irregular crenulated lines, a marginal line of black half-moon spots. *Hindwing*, basal half whitish buffy grey, outer half sooty grey, a black costal spot in basal half.

Expanse 36 mm. Length of forewing 16 mm.

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

#### ACONTIANAE

Dr. Wollaston captured 2 species of this subfamily.

#### 286. EARIAS UNIPLAGA B.-Baker.

*Earias uniplaga* Bethune-Baker, *Nov. Zool.*, xiii. p. 219, No. 83 (1906) (New Guinea).

1 ♂ Canoe Camp, Nov. 1912.

#### 287. ERIZADA SUBRUBRA (Pag.)

*Beara subrubra* Pagenstecher, in Chun, *Zoologica*, xxix. p. 94, pl. 2, fig. 35 (1900) (New Pomerania).

1 ♂ Base Camp, Jan. 1913.

## CATOCALINAE

The collection contains 8 species of this subfamily, of which 1 subspecies appears to be undescribed.

## 288. CHALCIOPE CEPHISE (Cram.)

*Noctua cephise* Cramer, *Pap. Exot.*, iii., pl. 227, fig. 9 (1779) (Ind. or.).

1 ♀ Base Camp, March 1913.

## 289. MEGISTACLYSMA RIBBEI (Pag.)

*Nyctipao ribbei* Pagenstecher, *Jahrb. Nass. Ver. Nat.*, xxxix. p. 140, No. 77, pl. 10, fig. 2 (1886) (Aru).

1 ♀ Base Camp, Nov. 1912.

## 290. HYPÆTRA MACROSTILSA Hampsn.

*Hypætra macrostilsa* Hampson, *Cat. Lep. Phal. B.M.*, xiii., p. 58, pl. 223, fig. 4 (1913) (New Guinea).

3 ♂♂ 1 ♀ Base Camp, Nov. 1912—March 1913.

## 291. MOCIS TRIFASCIATA (Steph.)

*Catephia trifasciata* Stephens, *Illustr. Brit. Ent. Haust.*, iii. p. 128 (1829) (England).

3 ♀♀ Base Camp, Jan.—March 1913.

## 292. PHYLLODES CONSPICILLATOR PURA subsp. nov.

♀. Differs from *c. conspicillator* in the darker forewings, less prominent discocellular reniform stigma, which is reduced to an irregular patch with a white central dot, and on the forewings the serpentine line across veins 2, 3 and 4 up to 5 is broader and more ill-defined. Hindwings are much blacker and the white and red patches are brighter and purer.

1 ♀ Base Camp, Nov. 1912.

## 293. ANUA HITUENSIS (Pag.)

*Ophisma hituense* Pagenstecher, *Jahrb. Nass. Ver. Nat.*, xxxvii. p. 235, pl. 7, fig. 2 (1884) (Amboina).

1 ♂ Base Camp, March 1913.

## 294. PARALLELIA ARCUATA (Moore)

*Ophiura arcuata* Moore, *P.Z.S.*, p. 609 (1877) (Andamans).

2 ♂♂ 1 ♀ Base Camp, Jan. 1913.

## 295. PARALLELIA PALUMBA (Guen.)

*Hulodes palumba* Guenée, *Hist. Nat. Ins.*, vol. vii., Noct. iii. p. 211, No. 1613 (1852) (Java).

1 ♂ Canoe Camp, Dec. 1912.

## COCYTIANAE

2 species only of this subfamily exist. Sir George Hampson has raised it to the rank of a family, *Cocytidae*, and places it after the *Lymantriidae* just before the *Hypsiidae*. I do not consider the modification of the veins 7 and 8 of the hindwing more than of an abnormal noctuid type, and I feel sure the proper place for the remarkable insect enumerated below, together with my *Eucoytia meeki*, is just after the subfamily *Mominae* in the family NOCTUIDAE.

## 296. COCYTIA DURVILLEI Boisd.

*Cocytia durvillii* Boisdual, *Mon. Zygénid.*, p. 22, pl. 1, fig. 1 (1829) (New Guinea).

8 ♂♂ 7 ♀♀ Base Camp, Nov. 1912—Jan. 1913.

## PHYTOMETRINAE

Of this subfamily only 1 species was obtained.

## 297. PHYTOMETRA CHALCYTES DINAWA (B.-Baker).

*Plusia dinawa* Bethune-Baker, *Nor. Zool.*, xiii. p. 270, No. 244 (1906) (New Guinea).

1 ♂ Base Camp, March 1913; 1 ♂ Utaqua River, 4000–6000 ft., Dec. 1912—Jan. 1913; 1 ♀ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

## NOCTUINAE

Dr. Wollaston sent 23 species of this subfamily, of which 10 species and 2 subspecies are new. This subfamily and the next have not yet been revised by Sir George Hampson, so I am not at all sure if I have arranged the *genera* in proper order. Further it is not certain whether some of the genera may not have been wrongly assigned—i.e. some genera of *Noctuinae* placed in the *Hypeninae* and vice versa.

## 298. BUZARA CHRYSOMELA Walk.

*Buzara chrysomela* Walker, *List Lep. Hist. B.M.*, xxxi. p. 159 (1864) (New Guinea).

1 ♀ Base Camp, March 1913; 1 ♀ Canoe Camp, Dec. 1912; 1 ♂ Utaqua River, 4000–6000 ft., Dec. 1912—Jan. 1913.

## 299. HYPOCALA AFFINIS sp. nov.

♂. Antennae brown; head and palpi cream-colour; tegulae, basal half pale cinnamon, outer half silvery ash-grey, a black line separating the two halves; rest of thorax silvery ash-grey; abdomen golden yellow, basal segment silvery ash-grey, anal segment black, anal tuft buff, some indistinct dorsal greyish marks on orange on 2nd, 3rd and 4th



segments. *Forewing*, basal half pale greenish grey suffused here and there with white, a broken brownish antemedian shadowy band and a black dot in cell, a large pure white reniform stigma, outer half abruptly divided, inner portion white washed with grey and slightly strigillated with black and with a long rusty rufous smear, outer portion chestnut brown with two large pale cinnamon patches, the lower of which contains 2 yellowish wedge-marks and is bordered inwardly by black and yellow angulated lines. *Hindwing*, inner half and outer half from tornus to vein 1 golden yellow, rest of outer half black, fringe from vein 1 to beyond vein 3 and from vein 5 to 7 buff.

Expanse 42 mm. Length of forewing 18 mm.

1 ♂ Base Camp, Jan. 1913.

### 300. ANOMIS DERNA (Swinh.)

*Abriesa derna* Swinhoe, *Ann. Mag. N. H.* (7), vi. p. 312 (1900) (Queensland).

1 ♂ Base Camp, Jan. 1913.

### 301. CLATERNA AFFINIS sp. nov.

♂. Differs from *cydonia* Cram. in being much darker; in the forewing the white subapical spot is much smaller and runs out into a longer point, the double median band is suddenly sharply angulated inwards at origin of vein 4 and continues as a narrow double line to inner margin.

♀ shows similar differences.

Expanse, ♂ 42, ♀ 46 mm. Length of forewing, ♂ 20, ♀ 20.5 mm.

1 ♂ Base Camp, Nov.—Dec. 1912; 1 ♂ 1 ♀ Upper Setekwa River up to 3000 ft., Sept. 1910 and Oct. 1912 (A. S. Meek). (Type ♂ and ♀ described.)

### 302. CALESIA VINOLIA Swinh.

*Calesia vinolia* Swinhoe, *Ann. Mag. N. H.* (7), xi. p. 508 (1903) (Fergusson).

1 ♂ Base Camp, Jan. 1913.

### 303. ERICEIA INANGULATA (Guen.)

*Hulodes inangulata* Guenée, *Noct.* iii., p. 210 (1852) (Silhet).

1 ♀ Base Camp, March 1913.

### 304. ERICEIA AMANDA (Walk.)

*Remigia amanda* Walker, *List Lep. Ins. B. M.*, xv. p. 1848 (1858) (Adelaide).

This is perfectly distinct from *inangulata* Guen.

1 ♂ Base Camp, Jan. 1913.

### 305. PARANYMPHA ASSIMILIS sp. nov.

♂. Antennae brown; palpi black tipped with cream-white; head and thorax cinnamon purplish mauve; abdomen wood-brown washed with cinnamon purplish mauve.

*Forewing* cinnamon purplish mauve, a few white subbasal dots, a sinuate antemedian line of white dots outside which is a sinuate black transverse line, a cellular band-like sooty black stigma, a sooty median band outside which is a sinuate line of black-and-white dots which coalesces with the band at vein 2 and to inner margin; outer half with several faint sooty bands. *Hindwing* cinnamon purplish mauve, abdominal and costal regions sooty brown-grey, a median slightly sinuate line of black-and-white dots and a number of faint sooty lines and bands.

Expanse 46 mm. Length of forewing 20.5 mm.

1 ♂ Canoe Camp, Nov. 1912.

306. *PARANYMPHA KLOSSI* sp. nov.

♀. Antennae brown; head and palpi yellowish grey-brown; thorax and abdomen brownish chestnut. *Forewing* brownish chestnut somewhat strigillated with dark brown; two antemedian sooty brown-grey somewhat shadowy bands, in the outer of which is an orange median dot; a broad postdiscal rufous chestnut band from costa to vein 4, outside which is a shadowy sooty blackish grey band reaching to vein 3; a chocolate spot on vein 1 near tornus. *Hindwing*, costal half dark brown-grey, lower half brownish chestnut with darker strigillations.

Expanse 52 mm. Length of forewing 23 mm.

2 ♀♀ Base Camp, January 1913.

307. *PRAXIS CAERULEOTINCTA* sp. nov.

♂. Antennae black; head and thorax deep brown intermixed with black and blue smooth glossy scales; abdomen clothed with wood-brown and grey-blue scales. *Forewing* greyish mauve blue with an antemedian spot and some postmedian splashes of rufous, wing transversed by 7 or more sinuate sooty black lines of spots, a deeply indented marginal black line and yellowish streaks in fringe. *Hindwing* similar.

Expanse 42 mm. Length of forewing 18.5 mm.

1 ♂ Uakwa River, 2500-3000 ft., Feb. 1913.

308. *PRAXIS NEBULOSA* sp. nov.

♂. Antennae strongly serrate black; head and thorax velvety black-brown slightly mixed with bluish white scales; abdomen blackish brown-grey. *Forewing* velvety black-brown, slightly tinged with lighter brown; on basal half in costal area and below median fold are patches of blue-grey scales, a cream yellow stigma, a median shadow band darker, a postmedian curved line of half-moons, and beyond it a dark shadow band, termen and fringe with whitish marks; outer half of wing with numerous and close patches of blue-grey scales. *Hindwing* base, basal  $\frac{2}{3}$  of costal area, abdominal margin yellowish wood-grey; rest of wing velvety black-brown, a median dentate black

line and a postmedian orange brown and similar one from above tornus to vein 7; disc and outer  $\frac{1}{4}$  of wing densely clothed with blue-grey scales.

Expanse 34 mm. Length of forewing 14.5 mm.

1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

### 309. *ATHYRMA SUBPUNCTATA* (B.-Baker).

*Hypactra subpunctata* Bethune-Baker, *Nov. Zool.*, xiii. p. 262, No. 220 (1906) (New Guinea).

1 ♂ Base Camp, Nov. 1912; 1 ♀ Canoe Camp, Nov. 1912.

### 310. *SENERATIA PRAECIPUA* (Walk.)

*Thermesia praecipua* Walker, *List Lep. Ins. Brit. Mus.*, xxxiii., p. 1056 (1865) (Ceylon).

2 ♀♀ Base Camp, Jan. 1913; 2 ♂♂ 3 ♀♀ Canoe Camp, Dec. 1912.

### 311. *FOCILLODES DISTORTA* (Warr.)

*Zethes distorta* Warren, *Nov. Zool.*, x. p. 126 (1903) (New Guinea).

1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

### 312. *ZETHES WOLLASTONI* sp. nov.

♂. Palpi, head and thorax cinnamon brown; abdomen, basal 2 segments cinnamon grey, rest sooty grey. *Forewing*, basal half pinkish cinnamon, two lines of different lengths in costal area and a dot below black, an indistinct shadowy band in this half rufous; a median broad band much angled and excised on outer side chocolate brown, outer area beyond median band, except costa and large wedge-like patch running in from costa, brownish blue-grey; a rusty brown dentate line in centre of this area, costa and wedge-like patch pale cinnamon. *Hindwing* pale yellowish wood-grey on basal half, in which half is a submedian black shadow band and a black linear stigma; outer half darker bluish grey-brown, a large irregular chocolate-brown shadowy patch in this half reaching into basal half excised and toothed on lower portion of the outer side; a median transverse white line on the outer side of which is a second yellow line, but the latter only reaches to vein 2.

Expanse 36 mm. Length of forewing 16 mm.

1 ♂ Base Camp, Jan. 1913.

### 313. *AZAZIA BOLINOIDES* (Guen.)

*Hypospila bolinoides* Guenée, *Hist. Nat. Ins. Sp. Gén. Lép.*, vol. vii., Noct. iii. p. 358 (1852) (Java).

1 ♂ Base Camp, March 1913.

### 314. *PLATEJA PLAGOSA* sp. nov.

♀. Nearest to *cyanopasta* Turner. Head, antennae and thorax brown; abdomen sooty brown sprinkled with blue-grey. *Forewing* chocolate brown irrorated and

suffused with mauve blue scales; a subbasal lavender blue line and a postmedian lavender blue line bordered outside by narrow rufous and brown-black lines; between these lines there is a broad chocolate space, a small round orbicular stigma chocolate edged with rufous and a very large chocolate reniform stigma edged with a very narrow line partly lavender blue and partly rufous; beyond reniform two chocolate dots ringed whitish; below reniform and joining on to it reaching to inner margin is a treble line of rufous, black-brown and lavender, which curves round along bottom of reniform and comes down beyond it to vein 1, bordering on the innerside a large yellowish grey quadrate spot on and above vein 1; a large bright chocolate wedge-shaped apical patch on the inner side of which starting from the costa is a double transverse line of black-brown and rufous which beyond the patch, where it is strongly angled and regularly indented, reaches along the outer side of the yellow-grey quadrate spot to vein 1. *Hind-wing*, costal half sooty black-brown, lower half black-brown densely irrorated with lavender blue and with a sinuate double transverse rufous and black line along which is an interrupted whitish crenulate line.

♂ differs from ♀ in the smaller forewings and the curiously excised hindwings. It also differs in the enormously developed hairy appendages to the legs.

Expanse, ♀ 70 mm. Length of forewing 31.5 mm.

1 ♀ Base Camp, Nov.—Dec. 1912: (♂ Octakwa River, 3000 ft., Dec. 1910, A. S. Meek).

### 315. IMLEONGA QUADRILINEA COMPLETA subsp. nov.

♂. Differs from *q. quadrilinea* in having much narrower wings, and the more basal of the two antemedian transverse bands is much straighter and reaches to the inner margin.

1 ♂ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

### 316. OXYODES SCROBICULATA OCHREATA subsp. nov.

♂. Differs from *s. scrobiculata* in the ground colour of the wings being strongly suffused with ochre yellow instead of grey.

1 ♂ Base Camp, March 1913.

### 317. PLECOPTERA JUNCEA (Swinh.)

*Heliothis juncea* Swinhoe, *P.Z.S.*, 1885, p. 448, pl. 27, f. 4 (Bombay).

3 ♂♂ 1 ♀ Base Camp, Nov. 1912—March 1913.

### 318. OGLASA HYPENINA sp. nov.

♂. Antennae dark brown, serrated, beyond the middle a large knob formed of curved, much elongated branches; head and tegulae brown-black; thorax sooty brown, abdomen sooty grey-brown. *Forewing* sooty black-brown except from well above vein 1 to inner margin, where the colour is yellowish wood-brown clouded with sooty

brown; the cellular stigma white and reniform black with pale centre, a buff subapical patch and a postmedian black patch from which a black line runs to inner margin. *Hindwing* sooty black-grey, fringe and abdominal margin paler.—♀ much paler.

Expanse 30 mm. Length of forewing 13.5 mm.

1 ♂ 1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

### 319. ISCHYJA KEBEAE B.-Baker.

*Ischyja kebae* Bethune-Baker, *Nov. Zool.*, xiii. p. 266, No. 234 (1906) (New Guinea).

1 ♂ Canoe Camp, Dec. 1912.

### 320. RHYTIA COCALUS (Cram.)

*Phalaena cocalus* Cramer, *Pap. Exot.*, vol. ii. fasc. xii. p. 59, pl. 134 f. B (1777) (Coromandel).

1 ♀ Canoe Camp, Dec. 1912.

## HYPENINAE

The collection contains 58 species of this family, of which 35 species and 3 subspecies are new.

### 321. CATADA OCELLATA B.-Baker.

*Catada ocellata* Bethune-Baker, *Nov. Zool.*, xv. p. 220, No. 149 (1908) (New Guinea).

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

### 322. CATADA ALBEOLA sp. nov.

♀. Antennae buffy brown; palpi, head and thorax white; abdomen white, with broad ochraceous orange bands. *Forewing* white suffused with cream on outer  $\frac{1}{3}$ , a subbasal elongate spot, antemedian, median, and postmedian bands ochraceous orange powdered along the edges with black scales and strigillations, as is a portion of the interspace between median and postmedian bands; reniform snow white edged with black, near outer edge of postmedian band are 2 black patches consisting of very dense strigillations, as does a subapical spot; beyond these 2 patches the strigillations are scattered and more smear-like, they are also on fringe, giving it a smoky appearance; a terminal line of black streaks. *Hindwing* grey with a few irregular white patches and streaks on lower half where the strigillations are absent; a broad black line edged with white from tornus to vein 4, and 2 ochraceous orange spots above tornus.

Expanse 24 mm. Length of forewing 10.5 mm.

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

### 323. CATADA DAHLIOIDES sp. nov.

♀. Antennae dark grey; palpi dark grey, 3rd joint black; head, thorax and abdomen sooty grey. *Forewing* sooty wood-brown, a whitish costal spot beyond middle; basal  $\frac{1}{2}$ ,



a 3-millimeter-broad median band, and a broad postmedian band strongly suffused with black-brown: a black reniform stigma and some indefinite paler subterminal and postdiscal marks. *Hindwing* sooty wood-brown suffused and irrorated with black-brown, especially in median area, which gives the appearance of a median cloudlike band; a lighter line beyond middle.

Expanse 22 mm. Length of forewing 9.5 mm.

1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

324. CATADA FULIGINOSA sp. nov.

♀. Antennae brown: head pale brown; thorax and abdomen sooty grey-brown. *Forewing* pale wood-brown with black orbicular stigma; base and outer half of wing sooty brown with paler indefinite postdiscal line: a terminal line of black dots. *Hindwing* sooty wood-brown with darker stigma.

Expanse 30 mm. Length of forewing 13.5 mm.

1 ♀ Base Camp, Jan. 1913.

325. CATADA POSTAURANTIA sp. nov.

♂. The type and only specimen is in poor condition.

Antennae rufous; head and palpi orange buff; thorax opalescent grey; abdomen buffish orange. *Forewing* apparently uniform smoky brown. *Hindwing* orange, apex and margin grey-brown.

Expanse 36 mm. Length of forewing 16 mm.

1 ♂ Base Camp, Dec. 1912.

326. SYSTATICOSPORA ORPHNINA B.-Baker.

♀ *Systaticospora orphnina* Bethune-Baker, *Nov. Zool.*, xv. p. 210, No. 120 (1908) (New Guinea).

♂ *Megaloptera lophota* id., l.c. p. 211, No. 121 (1908) (New Guinea).

1 ♀ Base Camp, Dec. 1912.

327. SYSTATICOSPORA RUFOTINCTA sp. nov.

♂. Antennae brown strongly pectinated; head and palpi umber brown; thorax and abdomen sepia brown. *Forewing*, basal  $\frac{2}{3}$  obliquely cinnabar red closely barred and streaked irregularly with sepia brown, outer  $\frac{1}{3}$  sepia brown with a brownish cinnabar apical patch and postdiscal and subterminal darker sepia marks. *Hindwing* darker sepia with a paler median shadow band edged with blackish.—Underside entirely blackish sepia.

Expanse 50 mm. Length of forewing 23 mm.

1 ♂ Base Camp, March 1913.

328. *BOCANA GEOMETROIDES* (Walk.)

*Dianthaccia geometroides* Walker, *List Lep. Ins. Brit. Mus.*, xxxiii, p. 722 (1865) (Australia).

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

329. *BOCANA MANIFESTALIS* Walk.

*Bocana manifestalis* Walker, *List Lep. Ins. B. M.*, xvi, p. 171 (1858) (Ceylon).

1 ♂ 1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

330. *MASTIGOPHORUS ALBOLINEATA GRISEOMARGINALIS* subsp. nov.

♀. Antennae grey-brown serrated, palpi gigantic, 18 mm. long, recurved over back of thorax reaching beyond middle of abdomen, 1st and 2nd joint grey, 3rd joint widened and flattened, grey on outside, orange rufous inside; head, thorax and abdomen greyish wood-brown. *Forewing*, basal  $\frac{3}{4}$  greyish wood-brown, with a number of transverse very faint shadow lines, reniform ash-grey; outer  $\frac{1}{4}$  ash-grey edged internally by a white line, an apical patch and a large median cloud brown, a terminal edge of black hairlike half-moons. *Hindwing* similar, but stigma dark brown and ash-grey; outer area broader, =  $\frac{1}{3}$  of wing.

Expanse 36 mm. Length of forewing 16 mm.

1 ♀ Canoe Camp, Dec. 1912.

331. *CHUSARIS ALBIPUNCTALIS* sp. nov.

♀. Antennae rusty brown; head maroon red; thorax and abdomen maroon cinnamon freckled and spotted with white. *Forewing* maroon cinnamon, basal  $\frac{1}{4}$  and costa streaked and freckled with white, reniform black; outer  $\frac{1}{3}$  freckled and spotted with white. *Hindwing* maroon cinnamon, basal  $\frac{2}{5}$  with 2 or 3 indistinct white marks, outer  $\frac{3}{5}$  except apex so densely spotted that this part of the wing almost appears to be white with maroon cinnamon lines.

Expanse 22 mm. Length of forewing 10 mm.

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

332. *PANGRAPTA LIGNARIA* sp. nov.

♂. Resembles somewhat an *Ennomos*. Antennae ochraceous buff, pectinate, plumose; head and thorax buff somewhat freckled with dark scales; abdomen greyish wood-buff. *Forewing* buff with a number of transverse irregular bands of varying width, shadowy and resembling the graining of wood, buff-brown, stigmata whitish, a brown subterminal bar running from tornus to vein 3. *Hindwing*, basal  $\frac{2}{3}$  buff with 2 black stigmatic dots; 2 antemedian shadowy buffish rufous lines, a postmedian sooty curved

hair-line, outer  $\frac{1}{3}$  orange rufous with a brown band from tornus to before apex, beyond this band upper  $\frac{2}{5}$  reddish grey, a hairline of coalescent half-moons along margin.

Expanse 28 mm. Length of forewing 12.5 mm.

1 ♂ Base Camp, March 1913.

### 333. *HIRSUTIPEDES INTENSOR* sp. nov.

♂. Allied to *trifasciata* Swinh., but larger and darker.

Antennae yellow; palpi yellow; head silvery grey; thorax wood-brown mixed with grey; abdomen wood-brown. *Forewing* wood-grey-brown strigillated irregularly and somewhat sparsely with dark brown, vein 1 broadly maroon rufous for the basal  $\frac{3}{4}$ ; antemedian and median broad somewhat cloudy bands velvety black-brown, a large postdiscal blackish cloud-like patch in upper  $\frac{3}{5}$  of outer half of wing; a minute white dot on lower discocellular. *Hindwing* brownish wood-grey strigillated with darker shade of same, an irregular indistinct strongly angled postmedian dark shadow line which is strongly marked in black and buff on and around veins 1 and 3, a zigzag terminal wood-brown line.

Expanse 48 mm. Length of forewing 21 mm.

1 ♂ Canoe Camp, Dec. 1912.

### 334. *LASIOPODERES PRATTI* B.-Baker.

*Lasiopoderes pratti* Bethune-Baker, *Nor. Zool.*, xiii. p. 263, No. 221 (1906) (New Guinea).

1 ♀ Base Camp, Nov. 1912; 1 ♀ Utkwa River, 2500–3000 ft., Feb. 1913.

### 335. *MAGULABA ALBOLUNATA* (Moore)

*Hingula albolunata* Moore, *Descr. Ind. Lep. Atk.*, p. 181 (1882) (Nilgiri Hills).

2 ♂♂ Base Camp, Jan. 1913; 1 ♂ 1 ♀ Canoe Camp, Dec. 1912.

### 336. *MAGULABA ROTUNDATA* sp. nov.

♂ ♀. Antennae black; head and thorax sooty black; abdomen sooty wood-grey. *Forewing* wood-greyish brown with satiny sheen, base and double median band blackish, cloud-like outer portion of double band stops at cell, several pale streaks on costa and wing in outer  $\frac{2}{5}$ . *Hindwing* wood-greyish brown with satiny sheen with lighter and darker shadow-lines.

Expanse 19 mm. Length of forewing 8 mm.

3 ♂♂ 1 ♀ Utkwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

### 337. *CADUCA ALBOPUNCTATA* (Walk.)

*Homoptera albopunctata* Walker, *List Lep. Ins. Brit. Mus.*, xiii. p. 1068 (1857) (N. India).

1 ♀ Canoe Camp, Dec. 1912.

## 338. DAHLIA FLAVICOSTALIS sp. nov.

♂. Differs from *melanica* B.-Baker by the white stigma and the buffish orange costa of forewing.

Expanse 28 mm. Length of forewing 12 mm.

1 ♂ Base Camp, Dec. 1912.

## 339. DAHLIA OCHREANA B.-Baker.

*Dahlia ochreana* Bethune-Baker, *Nov. Zool.*, xv. p. 202, No. 96 (1908) (New Guinea).

1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912.

## 340. DAHLIA MELANICA B.-Baker.

*Dahlia melanica* Bethune-Baker, *l.c.* p. 202, No. 95 (1908) (New Guinea).

1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

## 341. MARAPANA INDISTINCTA sp. nov.

♂. The single example is in poor condition. Antennae brownish amber; head, thorax and abdomen buffy cinnamon. *Forewing* cinnamon cream-colour; two rufous dots in reniform and a postdiscal and marginal row of small rufous spots. *Hindwing* cinnamon cream-colour apparently suffused all over with pink.

Expanse 24 mm. Length of forewing 10.5 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 342. MARAPANA OLIVACEA sp. nov.

♀. Antennae olive buff; head and thorax buffy white; abdomen pale fuscous brown. *Forewing* buffish grey clouded with brownish olive, concentrated on median  $\frac{1}{3}$  more or less into broad darker band, orbicular olive. *Hindwing* buffish brown-grey, washed and clouded with olive.

Expanse 22 mm. Length of forewing 9 mm.

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

## 343. MARAPANA PULVERATA (Guen.)

*Sanys pulverata* Guenée, *Hist. Nat. Ins. Spec. Gén. Lép.*, vol. vii., Noct. vol. iii. p. 351, No. 1822 (1852) (Central India).

1 ♂ Canoe Camp, Nov. 1912.

## 344. NAARDA OCHREISTIGMA (Hmps.)

*Bleptina ochreistigma* Hampson, *Moths India*, iii. p. 46 (1895) (Burma).

2 ♂♂ 5 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

## 345. NAARDA ALBOPUNCTALIS sp. nov.

♀. Antennae brown; head and palpi ochraceous; thorax brownish maroon; abdomen dark grey-brown. *Forewing* brownish maroon with numerous silvered snow-white dots scattered over the wing; a submarginal line of silvered white dots. *Hindwing* dark grey-brown.

Expanse 17 mm. Length of forewing 7 mm.

1 ♀ Base Camp, Nov. 1912.

## 346. NAARDA ALBOSTIGMA sp. nov.

♂. Antennae brown; head and thorax brown washed with maroon; abdomen greyish wood-brown. *Forewing* rufous brown washed with maroon, orbicular stigma white. *Hindwing* brownish wood-grey, basal half more tinged with yellowish.

Expanse 20 mm. Length of forewing 8.5 mm.

1 ♂ Canoe Camp, Dec. 1912.

## 347. NODARIA EXTERNALIS Guér.

*Nodaria externalis* Guenée, *Hist. Nat. Ins. Spec. Gén. Lép.* vol. viii. *Delt. et Pyral.*, pp. 64, 78 (1854) (Coromandel).

1 ♂ 1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

## 348. ECHANA ABAVALIS Walk.

*Echana abavalis* Walker, *List Lep. Ins. Brit. Mus.*, xvi. p. 196 (1858) (Ceylon, Sarawak).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 349. ECHANA CHIONAEMOIDES sp. nov.

♂. Resembles *Chionaema brunnea* B.-Baker. Antennae dark brown; palpi outside dark sooty brown with outer edge buff, inside wholly buff; head and thorax dark sooty brown; abdomen sooty brown-grey. *Forewing* sooty brown, orbicular stigma and broken median line black-brown; recurved hairy lobe of costa blackish brown; a white spot on costa and one below vein 1 about  $\frac{1}{3}$  from termen. *Hindwing* semihyaline brownish grey with 2 or 3 faint shadow lines and cellular stigma somewhat darker.

♀ has the recurved lobe of costa absent and is darker, forewing tinged with purple. hindwing darker brown-grey.

Expanse, ♂ 34, ♀ 32 mm. Length of forewing, ♂ 15, ♀ 14 mm.

1 ♂ 2 ♀♀ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

## 350. MIDEA RECTALIS Walk.

*Midea rectalis* Walker, *List Lep. Ins. Brit. Mus.*, xxvii. p. 21 (1863) (Borneo).

2 ♂♂ Utakwa River, 3000 ft., Jan. 1913.



## 351. PERIGEA CAPENSIS (Guen.)

*Apamea capensis* Guenée, Noct. i. p. 213 (1852) (Cape of Good Hope).

1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

## 352. AXIOCTETA SUBUNIFORMIS sp. nov.

♀. Antennae, head, thorax and abdomen cinnamon buff. *Forewing* bronzy old rose, washed with grey on outer  $\frac{2}{3}$ ; reniform marked with 2 black dots. *Hindwing* rosy pink, yellowish towards base.

Expanse 34 mm. Length of forewing 15 mm.

1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912.

## 353. PARACOLAX GRISEATA sp. nov.

♂ ♀. Antennae, palpi, head, thorax, abdomen and forewing uniform wood-grey; edge of apex of forewing and some marks on fringe darker, as is the terminal hair-line. *Hindwing* paler wood-grey.

Expanse 26 mm. Length of forewing 12 mm.

12 ♂♂ 8 ♀♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

## 354. PARACOLAX ALBOPUNCTATA sp. nov.

♀. Uniform wood-grey; wings with some slightly darker transverse shadow bands, cell with 2 black dots in fore- and 1 in hindwing; a postdiscal line of white dots, the one on abdominal edge of hindwing much larger.—♂ slightly darker.

Expanse, ♂ 26, ♀ 24 mm. Length of forewing, ♂ 11.5, ♀ 10.5 mm.

2 ♂♂ 2 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912—Feb. 1913 (♀ type).

## 355. NANAGUNA BREVIUSCULA (Walk.)

*Orthosia breviuscula* Walker, *List Lep. Ins. Brit. Mus.*, xxxiii. p. 716 (1865) (Moreton Bay).

1 ♂ Base Camp, Jan. 1913.

## 356. HERMINEA CLATHRATA (Holl.)

*Nodaria clathrata* Holland, *Nov. Zool.*, vii. p. 575, No. 281 (1900) (Buru).

1 ♂ Canoe Camp, Dec. 1912; 1 ♀ Utakwa River, 3000 ft., Jan. 1913.

## 357. HYPENA HEDYCHROA B.-Baker.

*Hypena hedychroa* Bethune-Baker, *Nov. Zool.*, xv. p. 230, No. 180 (1908) (New Guinea).

2 ♂♂ Base Camp, Jan. 1913; 1 ♂ Canoe Camp, Dec. 1912.

## 358. HYPENA THERMESIALIS Walk.

*Hypena thermesialis* Walker, *List Lep. Ins. Brit.*, xxxiv. p. 1515 (1865) (Java).

1 ♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

359. *HYPENA ERECTA* B.-Baker.

*Hypena erecta* Bethune-Baker, *Nor. Zool.*, xv, p. 232, No. 186 (1908) (New Guinea).

1 ♂ Base Camp, Nov.—Dec. 1912.

360. *HYPENA MEDIOEXCISA* sp. nov.

♂. Antennae pale grey; palpi, head, thorax and abdomen wood-brown-grey. *Forewing*, basal  $\frac{2}{3}$  pinkish lavender grey; outer  $\frac{1}{3}$  brownish grey, darker on inner half; apical patch pinkish lavender grey, a broad median sooty black band serpentinely excised on outer and sinuated on inner edge. *Hindwing* brown-grey.

Expanse 28 mm. Length of forewing 12 mm.

1 ♂ Base Camp, March 1913.

361. *HYPENA GANOSPILALIS* Walk.

*Hypena indicatalis* var. *ganospilalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv, p. 1316 (1865) (Java).

1 ♂ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

362. *HYPENA OCHRACEOLALIS* sp. nov.

♂. Antennae, head and thorax greyish ochraceous; abdomen ochraceous grey-brown. *Forewing* yellowish ochraceous, a median shadowy sinuate grey band, a minute cellular black dot, outer area shaded with grey-brown; ♀ has median bar darker, ground colour more rufous and outer area more shaded with brown; both sexes, *hindwing* dark grey.

Expanse 24 mm. Length of forewing 10.5 mm.

1 ♀ Base Camp, Dec. 1912; 1 ♂ Utakwa River, 3000 ft., Jan. 1913.

363. *HYPENA GRISEOLALIS* sp. nov.

♂. Antennae, head, thorax and abdomen yellowish wood-grey. *Forewing* pale yellowish wood-grey densely and very finely strigillated with darker wood-grey; cellular stigma and two faint discal lines whitish buff. *Hindwing* similar, but with dark patch above tornus.—♀ rather greyer.

Expanse 26 mm. Length of forewing 11 mm.

1 ♂ Base Camp, Jan. 1913; 1 ♀ Canoe Camp, Dec. 1912.

364. *HYPENA FULIGINOSA* sp. nov.

♂. Antennae brown; gigantic palpi, thorax and abdomen sooty grey-brown. *Forewing* wood-brown-grey irrorated densely with darker wood-brown; a buff line runs in from apex  $\frac{1}{3}$  of length of wing, a row of dark dots from this pale line to inner margin  $\frac{1}{4}$  from termen. *Hindwing* dark grey.—♀ slightly brighter.

Expanse 34 mm. Length of forewing 15 mm.

1 ♂ 1 ♀ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

365. *HYPENA ALBONOTATA MICROSTICTA* subsp. nov.

♀. Similar to *a. albonotata* B.-Baker, but antemedian white spot only  $\frac{1}{3}$  the size.  
1 ♀ Carstensz Peak, 5000–6000 ft., Feb.—March 1913.

366. *HYPENA GRISEOFASCIATA* sp. nov.

♀. Antennae and palpi dark grey; head and thorax dark grey freckled with whitish grey; abdomen dark grey with whitish hair-line rings on outer edges of segments. *Forewing*, basal half mouse grey irrorated with brown-grey; an antemedian ill-defined double bar, white basad, brown interrupted distad, a dark brown median band with central rusty ochre line; outer half divided into 3 broad bands, innermost whitish ash grey, median sooty grey, and terminal mouse grey. *Hindwing* yellowish wood grey.

Expanse 34 mm. Length of forewing 15 mm.

1 ♀ Utkwa River, 3000 ft., Jan. 1913.

367. *FALCIMALA AUREA* B.-Baker.

*Falcimala aurea* Bethune-Baker, *Nov. Zool.*, xv, p. 213, No. 127 (1908) (New Guinea).

1 ♀ Utkwa River, 3000 ft., Jan. 1913.

368. *FALCIMALA ANGULIFASCIA* sp. nov.

♂. Antennae golden brown; head and tegulae golden buff; rest of thorax and abdomen buff. *Forewing* buff shaded with olive yellow, 2 median lines, crossed, angled and produced, as well as a faint double interrupted brown postmedian line and some faint shadow-patches in the excised terminal area brownish. *Hindwing* cream white suffused all over with rosy grey.

Expanse 22 mm. Length of forewing 9.5 mm.

1 ♂ Base Camp, Jan. 1913.

369. *FALCIMALA MORAPANOIDES* sp. nov.

♂. Antennae brown; head, palpi and thorax cinnamon ochre; abdomen cream buff with 2 rosy maroon smears on basal half. *Forewing* cinnamon buff, densely banded with rosy grey shadow bands; a subbasal bar on costa, an antemedian band and a curved median band from costa to median fold black-brown, 2 cellular black dots, a double row of terminal spots maroon. *Hindwing* cinnamon pink, basal  $\frac{3}{5}$  suffused with buff, fringe buff, a black spot at tornus. A second specimen has the bands on forewing almost obsolete and no buff on basal  $\frac{3}{5}$  of hindwing.

Expanse 22 mm. Length of forewing 10 mm.

2 ♂♂ Utkwa River, 2500–3000 ft., Jan.—Feb. 1913.

## 370. METASADA ACONTIANALIS sp. nov.

♂. Antennae buffish brown; head and thorax buffish wood-brown; abdomen greyish wood-brown. *Forewing* buff clouded and densely irrorated with dark brown; two cellular stigmata, a broad median band and square patch, a subterminal line and terminal band of spots being formed by the irroration being denser. *Hindwing* dark mouse grey.

Expanse 23 mm. Length of forewing 10.5 mm.

1 ♂ Base Camp, March 1913.

## 371. LUCERIA ROSEOCINNAMOMEA sp. nov.

♀. Antennae brown; head and thorax brownish maroon; abdomen cinnamon wood-brown. *Forewing* cinnamon mauve pink: a very broad median band, a broad post-discal band, and a crenulated terminal line rufous maroon; fringe buff, almost entirely suffused with maroon. *Hindwing*, basal  $\frac{2}{5}$  buff, outer  $\frac{3}{5}$  rosy maroon.

Expanse 22 mm. Length of forewing 10 mm.

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

## 372. LUCERIA BIPARTITA sp. nov.

♀. Antennae whitish brown; palpi orange buff; head and thorax cream buff; abdomen pale wood-brown-grey. *Forewing*, basal  $\frac{2}{5}$  cream buff, outer  $\frac{3}{5}$  yellowish buff clouded and irrorated with dark brown, densest in terminal and middle areas of wing, in the latter of which it forms an oblique band separating off the basal  $\frac{2}{5}$  of cream buff. *Hindwing* mouse grey.—♂ similar, but outer  $\frac{3}{5}$  of forewing darker.

Expanse 15 mm. Length of forewing 6.5 mm.

1 ♂ 1 ♀ Utakwa River, 2500–3000 ft., Jan.—Feb. 1913 (♀ type).

## 373. LUCERIA LACTEALIS sp. nov.

♂. Entirely cream-coloured; terminal area of forewing suffused with pale orange. a central brown line on forewing and a terminal row of minute dark dots; hindwing washed with grey.

Expanse 14 mm. Length of forewing 6 mm.

1 ♂ Utakwa River, 3000 ft., Jan 1913.

## 374. LUCERIA AFFINIS sp. nov.

♂. Similar to *bipartita*, but larger; differs in that the outer  $\frac{2}{3}$ , *not*  $\frac{3}{5}$ , are clouded with brown and much more densely, and that there are 2 transverse bands, *not* 1, in this outer  $\frac{2}{3}$ .

Expanse 18 mm. Length of forewing 8 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 375. LUCERIA OCULALIS (Moore)

*Rivula oculalis* Moore, *P.Z.S.*, p. 614 (1877) (Andamans).

2 ♂♂ Utakwa River, 2500-3000 ft., Jan.—Feb. 1913.

## 376. ANACHROSTIS GRISEATA sp. nov.

♀. Head, antennae, thorax, and abdomen whitish buffy grey, powdered with darker grey. *Forewing* buffy whitish grey, clouded and powdered with grey-brown. *Hindwing* whitish grey.

Expanse 15 mm. Length of forewing 6.5 mm.

1 ♀ Canoe Camp, Dec. 1912; 1 ♀ Utakwa River, 2500-3000 ft., Feb. 1913.

## 377. ANACHROSTIS STRAMINEA sp. nov.

♀. Antennae, head and thorax cream-colour; abdomen mouse grey. *Forewing* cream-colour slightly irrorated with brown; fringe ochre yellow, a cloudy, ill-defined median band, a similar postdiscal band and some terminal streaks brown. *Hindwing* cream-colour with some rusty clouding in and around cell and a dark brown irregular post-discal band and clouding. Margin of wings angulated.—♂ darker and more variegated.

Expanse 14 mm. Length of forewing 6 mm.

1 ♂ 1 ♀ Utakwa River, 3000 ft., Jan. 1913.

## 378. ANACHROSTIS COSTIPLAGA sp. nov.

♂. Antennae pale brown; palpi, head, and tegulae black-brown; rest of thorax creamy white; abdomen yellowish wood-grey. *Forewing*, basal  $\frac{2}{3}$  cinnamon cream-colour, outer  $\frac{1}{3}$  brownish lavender grey; fringe ochreous, a large rufous chocolate patch in centre of costa reaching into cell, beyond this 4 buff spots. *Hindwing* brown-grey. Two other ♂♂ have the basal  $\frac{2}{3}$  of forewing suffused with brown-grey.—♀ has whole of forewings rufous cinnamon, darker towards termen, and the costal patch rufous chestnut, while hindwings are dark sooty brown.

Expanse, ♂ 18, ♀ 22 mm. Length of forewing, ♂ 8, ♀ 10 mm.

3 ♂♂ 4 ♀♀ Utakwa River, 2500-3000 ft., Dec. 1912—Feb. 1913.

## 379. TOLPIA BRUNNESCENS sp. nov.

♀. Head, thorax and abdomen pale buffish brown, powdered with rufous brown scales. *Forewing* brownish buff, clouded and speckled with rufous brown; a brown cellular stigma. *Hindwing* pale greyish wood-brown.

Expanse 14 mm. Length of forewing 6 mm.

1 ♀ Utakwa River, Jan. 1913.



380. *TOLPIA POSTRESTRICTA* sp. nov.

♂. Body and forewing rusty wood-brown. Hindwing very small, pale brownish buff.

Expanse 14 mm. Length of forewing 6 mm.

3 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912—Feb. 1913.

381. *TIPASA PLUMBEEA* sp. nov.

♂. Tegulae whitish; rest of thorax and abdomen lead-grey. *Forewing* ash-grey freckled with reddish brown; 2 reddish brown patches and 5 similar dots on costa and a reddish brown terminal line. *Hindwing* leaden grey.

Expanse 12 mm. Length of forewing 5 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

382. *TIPASA RUFOCASTANEA* sp. nov.

♂. Antennae brown; head ochreous; thorax and abdomen sooty brown-grey. *Forewing* rufous maroon chestnut; basal  $\frac{2}{3}$  strongly suffused with rosy cinnamon. *Hindwing* dark sooty grey. Hindlegs strongly tufted.

Expanse 18 mm. Length of forewing 8 mm.

1 ♂ Utakwa River, Jan. 1913.

383. *ARAMUNA TESTACEA* sp. nov.

♂. Antennae, head and thorax testaceous wood-brown; abdomen sooty black, anal tuft rufous wood-brown. *Forewing* pale testaceous mould-brown. *Hindwing* sharply triangular, tornus produced, sooty black, abdominal area pale testaceous wood-brown.

♀ has abdomen same colour as forewings and hindwings are not triangular.

Expanse, ♂ 27, ♀ 24 mm. Length of forewing, ♂ 12, ♀ 11 mm.

1 ♂ 1 ♀ Utakwa River, 2500–3000 ft., Jan.—Feb. 1913.

## LYMANTRIIDAE

Of this family Dr. Wollaston procured 23 species, of which 15 are new.

384. *SITVIA SUBDENUDATA* sp. nov.

♀. Antennae black, pectinations brown-grey; thorax and abdomen cream white, 2 black spots on thorax. *Forewing* semihyaline white, rather more scaled than in *denudata* Walk., the veins more cream-colour; basal  $\frac{2}{3}$  of costa black, extending on to subcosta in apical  $\frac{1}{3}$ , termen broadly sooty black divided into 8 large sooty black spots by the

nervures, 2 sooty black quadrate spots on inner margin. *Hindwing* white, nervures creamy; termen broadly sooty black divided by the nervures into 8 patches.

Expanse 70 mm. Length of forewing 33 mm.

1 ♀ Uakwa River, 2500–3000 ft., Dec. 1912.

### 385. *RAJACOA ANTRA* Swinh.

*Rajacoa antra* Swinhoe, *Ann. Mag. N. H.* (7), xii. p. 194 (1903) (New Guinea).

4 ♂♂ Base Camp, Nov. 1912—Jan. 1913; 2 ♂♂ Uakwa River, 2500–3000 ft., Jan.—Feb. 1913.

### 386. *RAJACOA FUSCIAPICALIS* sp. nov.

♂. Antennae grey; head, thorax and abdomen cream-colour. *Forewing* semihyaline greyish white, base and basal  $\frac{1}{4}$  costa cream-colour gradually passing into the grey shade of wing; apex mouse grey. *Hindwing* semihyaline white passing into pale pearl grey on outer  $\frac{1}{4}$ .—♀ larger and grey apex more extensive.

Expanse, ♂ 52, ♀ 66 mm. Length of forewing, ♂ 24, ♀ 31 mm.

1 ♀ Base Camp, Nov. 1912; 1 ♂ Uakwa River, 2500–3000 ft., Feb. 1913.

### 387. *RAJACOA ROTUNDATA* sp. nov.

♂. Remarkable for very rounded wings. Antennae white with grey pectinations; head and thorax cream white; abdomen white above, cream white laterally. *Forewing* strongly rounded, white, somewhat sparingly scaled, base and most of nervures cream-colour; apex and outer  $\frac{3}{4}$  of costal area pale pearl grey. *Hindwing* white, slightly tinged outwardly with grey.—♀ larger and more semihyaline.

Expanse, ♂ 50, ♀ 58 mm. Length of forewing, ♂ 23, ♀ 27 mm.

1 ♂ 1 ♀ Base Camp, Nov. 1912.

### 388. *REDOA SUBMARGINATA* Walk.

*Redoa submarginata* Walker, *List Lep. Ins. Brit. Mus.*, iv. p. 826 (1855) (Sylhet).

2 ♂♂ Uakwa River, 3000 ft., Jan. 1913.

### 389. *EUPROCTIS DRUCEI* Swinh.

*Euproctis drucei* Swinhoe, *Tr. Ent. Soc. Lond.*, p. 408 (1903) (Fergusson Island).

1 ♂ 1 ♀ Base Camp, Nov. 1912; 2 ♀♀ Canoe Camp, Dec. 1912.

### 390. *EUPROCTIS MAZA* Swinh.

*Euproctis maza* Swinhoe, l.c., p. 407 (1903) (New Guinea).

3 ♂♂ 2 ♀♀ Base Camp, Nov.—Dec. 1912; 1 ♂ 2 ♀♀ Canoe Camp, Nov. 1912; 2 ♂♂

Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913; 1 ♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

391. *EUPROCTIS AURANTICOLOR* sp. nov.

♂ ♀. Entirely deep orange yellow; veins and stigma of forewing pale yellow, outer  $\frac{3}{5}$  of hindwing yellow.

Expanse, ♂ 40, ♀ 28–38 mm. Length of forewing, ♂ 17.5, ♀ 12–17 mm.

1 ♂ 6 ♀♀ Base Camp, Nov. 1912—March 1913; 2 ♀♀ Canoe Camp, Nov. 1912; 1 ♂ (type) Utakwa River, 2500–3000 ft., Dec. 1912.

392. *EUPROCTIS BISECTA* sp. nov.

♂. Antennae amber brown; head and thorax brownish yellow; abdomen black, basal segment and anal tuft brownish buff. *Forewing* yellow; nervures cream white, a rust-brown spot in cell. *Hindwing* golden orange.

Expanse 40 mm. Length of forewing 17.5 mm.

1 ♂ Base Camp, Jan. 1913.

393. *EUPROCTIS NEBULOSA* sp. nov.

♂. Antennae pale amber; head and thorax whitish cream-colour; abdomen orange buff. *Forewing*, basal  $\frac{2}{5}$  buffish olive, 2 antemedian cream white transverse lines, a black stigma, outer  $\frac{3}{5}$  buffish olive heavily powdered with black, the black scales between veins 2 and 7 so dense as to form a large black cloud-patch; termen from tornus to vein 5 pale cream with brown spots, apex cream. *Hindwing* buffy orange.

Expanse 27 mm. Length of forewing 12 mm.

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

394. *EUPROCTIS POSTBICOLOR* sp. nov.

♀. Antennae, head, thorax and abdomen sooty chocolate brown, anal tuft paler. *Forewing* sooty chocolate brown. *Hindwing*, basal half below vein 6 soot-brown, outer half and area above vein 6 orange.

Expanse 58 mm. Length of forewing 26.5 mm.

2 ♀♀ Canoe Camp, Nov. 1912.

395. *EUPROCTIS FUSCA* sp. nov.

♂. Antennae, head and thorax wood-buff, patagia stained with brown; abdomen pale wood-brown. *Forewing* dark wood-brown, 2 antemedian and a postdiscal pale yellowish somewhat cloudy transverse zigzag lines. *Hindwing* yellowish wood-brown.

Expanse 22 mm. Length of forewing 9.5 mm.

1 ♂ Base Camp, Nov.–Dec. 1912.

396. *LYMANTRIA VARIEGATA* sp. nov.

♂. Antennae rufous ; head cinnamon white ; thorax and abdomen dark cinnamon grey, here and there marked with dirty white. *Forewing* white ; costal area, stigma, broad interrupted submedian band and a number of irregular postmedian, subterminal and terminal lines cinnamon mauve grey. *Hindwing* cream white.

Expanse 42 mm. Length of forewing 18 mm.

1 ♂ Base Camp, March 1913.

397. *LYMANTRIA NIGRITA* sp. nov.

♂. Antennae, head, thorax and abdomen sooty chocolate brown. *Forewing* chocolate brown traversed by a number of crenulated blue, grey and white lines and bands, and suffused with rufous in basal  $\frac{1}{5}$  and between inner margin and vein 3. *Hindwing* sooty chocolate brown.

Expanse 35 mm. Length of forewing 13.5 mm.

1 ♂ Base Camp, Nov. 1912.

398. *LYMANTRIA FUSCA* sp. nov.

♂. Dark wood-brown. *Forewing* with a number of indistinct crenulate transverse darker lines and an oblique whitish line from apex to inner margin.

Expanse 30 mm. Length of forewing 13 mm.

1 ♂ Base Camp, Jan. 1913.

399. *LYMANTRIA GRISEATA* sp. nov.

♂. Brownish wood-grey. *Forewing* with broad dark antemedian band and an oblique narrower postmedian one and several indistinct lines.

Expanse 32 mm. Length of forewing 14 mm.

1 ♂ Base Camp, Jan. 1913.

400. *IMAU* *MARGINIPUNCTA* B.-Baker.

*Imaus marginipuncta* Bethune-Baker, *Nov. Zool.*, vol. xi. p. 410 (1904) (Aroa River).

1 ♂ Base Camp, Nov.—Dec. 1912 ; 1 ♂ Canoe Camp, Dec. 1912.

401. *IMAU* *DUBIA* B.-Baker.

*Imaus dubia* Bethune-Baker, *Nov. Zool.*, vol. xi. p. 410 (1904) (Aroa River).

1 ♂ Base Camp, Jan. 1913 ; 1 ♂ Canoe Camp, Nov. 1912.

402. *IMAU* *PRATTI* B.-Baker.

*Imaus pratti* Bethune-Baker, *Nov. Zool.*, vol. xi. p. 409 (1904) (Dinawa).

2 ♂♂ 1 ♀ Canoe Camp, Nov. 1912 ; 1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

403. *IMAUUS CINNAMOMINA* sp. nov.

♂. Antennae, head, thorax and abdomen pale cinnamon. *Forewing* greyish cinnamon with a number of crenulate darker shadow-lines, small black stigma. *Hindwing* cinnamon white.

Expanse 32 mm. Length of forewing 14.5 mm.

3 ♂♂ Base Camp, Nov. 1912—Jan. 1913; 1 ♂ Canoe Camp, Nov. 1912; 1 ♂ Utkwa River, sea level, Nov. 1912.

404. *DASYCHIRA ALBOSCHISTACEA* sp. nov.

♂. Antennae rusty brown; head and thorax cream white; abdomen amber grey, a dark brown patch on 2 basal segments. *Forewing* divided longitudinally; upper half white, lower half chocolate brown; in the white area are some striae, streaks and patches of chocolate, and in the chocolate-brown area are some bluish schistaceous clouds. *Hindwing* grey-buff heavily edged with cloudy wood-grey.

Expanse 36 mm. Length of forewing 16 mm.

1 ♂ Base Camp, Jan. 1913.

405. *DASYCHIRA PLAGOSA* sp. nov.

♀. Antennae, head and tegulae dark rufous brown; rest of thorax and abdomen cinnamon brown-grey. *Forewing* cinnamon brown-grey somewhat irrorated with brown; a dark chocolate patch at base and a very large postmedian dark chocolate patch running to a point below vein 2. *Hindwing* cinnamon wood-grey.

Expanse 58 mm. Length of forewing 26 mm.

1 ♀ Utkwa River, 2500–3000 ft., Feb. 1913.

## HYPSIDAE

Of this family Dr. Wollaston sent 9 species, of which 1 species and 1 subspecies are new.

406. *DEILEMERA PELLE*X (Linn.)

*Phalaena pille*X Linnaeus, *Syst. Nat.*, i. p. 510 (1758) (In Indiis).

1 ♂ 1 ♀ Base Camp, Nov. 1912.

407. *DEILEMERA KAPAURENSIS* Swinh.

*Deilemera kaparensis* Swinhoe, *Tr. Ent. Soc.*, p. 73 (1903) (Kapur).

2 ♀♀ Utkwa River, 4000–6000 ft., Dec. 1912—Jan. 1913; 1 ♂ 5 ♀♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.



408. *DEILEMERA ABSURDUM LATIMARGO* subsp. nov.

♀. Differs from *a. absurdum* in having the dark margin of the hindwing double as wide.  
7 ♀♀ Base Camp, Nov.—Dec. 1912.

409. *NEOCHERA EUGENIA PAPUANA* Rothschild.

*Neochera eugenia papuana* Rothschild, *Nov. Zool.*, vol. iii. p. 200, No. 51 (1896) (Humboldt Bay).

5 ♂♂ 7 ♀♀ Base Camp, Nov. 1912—March 1913 ; 2 ♂♂ 1 ♀ Canoe Camp, Nov.—Dec. 1912 ; 3 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912—Feb. 1913.

410. *ASOTA ORBONA SIGNIFICANS* (Walk.)

*Hypsa significans* Walker, *List Lep. Ins. Brit. Mus.*, xxxi. p. 215 (1864) (Aru).

1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

411. *ASOTA AUSTRALIS AEQUALIS* (Walk.)

*Hypsa aequalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxi. p. 214 (1864) (Aru).

3 ♂♂ Base Camp, Nov. 1912—Jan. 1913.

412. *ASOTA WOLLASTONI* sp. nov.

♂. Nearest to *australis*, but larger and forewing broader. Differs from *australis aequalis* as follows : antennae more serrate, not pectinated ; forewing broader, *above* darker wood-brown strongly glossed with purple, cream patch beyond cell more ovate, orange of basal area *not* sharply cut off, but running into cream patch below cell ; a broad scimitar-shaped band of orange along and above inner margin *absent* in *a. aequalis* ; below basal  $\frac{2}{3}$  of forewing entirely orange yellow ; *no* white and wedge-like median black patch much smaller.

Expanse, *aequalis* 62 mm., *wollastoni* 76 mm. Length of forewing, *aequalis* 27, *wollastoni* 35 ; breadth *ae.* 13.5, *woll.* 17 mm.

1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

413. *ASOTA STRIGOSA* (Boisd.)

*Aganais strigosa* Boisduval, *Voy. Astrolabe, Lép.*, p. 250, No. 2 (1832) (New Guinea).

1 ♂ Base Camp, Nov. 1912 ; 1 ♀ Canoe Camp, Dec. 1912.

414. *ASOTA HELICONIA DORYCA* (Boisd.)

*Aganais doryca* Boisduval, *Voy. Astrolabe, Lép.*, p. 251, No. 4 (1832) (New Guinea).

2 ♂♂ 1 ♀ Base Camp, Jan.—March 1913.

415. *ASOTA VERSICOLOR VERSICOLOR* (Don.)

*Noctua versicolor* Donovan, *Ins. New Holl.*, pl. 39, f. 3 (1805) (New Holland).

1 ♀ Canoe Camp, Nov. 1912 ; 2 ♂♂ Utakwa River, 2500–3000 ft., Feb. 1913.

## SPHINGIDAE

Of this family there are 3 species in the collection, all well-known forms.

## SESIIINAE

Of this subfamily 1 species is in the collection.

## 416. MACROGLOSSUM VACILLANS Walk.

*Macroglossa vacillans* Walker, *List Lep. Ins. Brit. Mus.*, xxxi, p. 27 (1864) (Lesser Sunda Islds.).

1 ♂ Carstensz Peak, 5000-10,000 ft., Feb.—March 1913.

## CHAEROCAMPINAE

Of this subfamily 2 species were collected.

## 417. THERETRA CLOTHO CELATA (Butl.)

*Chaerocampa celata* Butler, *P.Z.S.*, 1877, p. 472 (Papuan Subregion).

1 ♂ Base Camp, Nov. 1912.

## 418. THERETRA OLDENLANDIAE (Fabr.)

*Sphinx oldenlandiae* Fabricius, *Syst. Ent.*, p. 542, No. 21 (1775) (India).

1 ♂ Base Camp, Nov.—Dec. 1912.

## EUPTEROTIDAE

Of this family the collection contains 2 species, 1 being new.

## 419. COTANA CASTANEORUFA sp. nov.

♀. Antennae black ; head fiery orange ; thorax orange shaded with brown ; abdomen orange rufous, anal tuft pale grey. *Forewing* maroon chestnut ; basal  $\frac{1}{5}$  of wing and basal  $\frac{2}{3}$  of costal area clothed with orange rufous hairs, nervures in basal  $\frac{3}{4}$  of wing dull olive rufous, a large ovate yellow patch below cell, a postdiscal band of joined yellow triangles, nervures between this band and the termen orange. *Hindwing* maroon chestnut ; basal  $\frac{1}{3}$  of wing clothed with orange rufous hairs, nervures orange rufous, a postdiscal band of wedge-shaped orange yellow joined triangles.

Expanse 66 mm. Length of forewing 30.5 mm.

1 ♀ Base Camp, Nov. 1912.

## 420. NERVICOMPRESSA DUBIA B.-Baker.

*Nervicompressa dubia* Bethune-Baker, *Nov. Zool.*, vol. xi. p. 391, pl. 4, f. 19 (1904) (Dinawa).

1 ♂ Base Camp, Nov. 1912.

## NOTODONTIDAE

Of this family Dr. Wollaston obtained 2 species, and both are new.

## 421. ICHTHYURA CASTANEA sp. nov.

♀. Antennae, head and thorax rufous maroon chestnut; abdomen cinnamon rufous grey. *Forewing* rufous maroon chestnut shaded with pink and rust red; an oblique submedian pink line and between this a pink oblique S-shaped line, a dark stigma and a postdiscal serpentine pink line. *Hindwing* dark cinnamon brown.

Expanse 36 mm. Length of forewing 16 mm.

1 ♀ Base Camp, Jan. 1913.

## 422. OMICHLIS PARALLELISTRIGA sp. nov.

♂. Antennae rosy cinnamon brown; head and thorax rosy cinnamon freckled with cinnamon buff; abdomen cinnamon brown, first 2 segments with long cinnamon buff hair. *Forewing* rosy cinnamon slightly clouded with brown and with a number of faint brown crenulate transverse lines and dots; a brown horizontal median line from base to middle of termen, a white stigma and a median transverse brown line strongly angled where it meets the horizontal line. *Hindwing* dark cinnamon purplish brown, costal area and fringe paler.

Expanse 48 mm. Length of forewing 21 mm.

1 ♂ Utakwa River, 2500-3000 ft., Dec. 1912.

## GEOMETRIDAE

The collection contains 133 species, of which 35 species and 3 subspecies are here described as new.

## GEOMETRINAE

Dr. Wollaston sent 71 species of this subfamily, out of which 21 species and 3 subspecies prove to be new.

## 423. INGENA LUCIFERA Warr.

*Ingena lucifera* Warren, *Nov. Zool.*, x. p. 385 (1903) (New Guinea).

2 ♂♂ Utakwa River, 2500-3000 ft., Dec. 1912—Jan. 1913.

## 424. PLECTONEURA ALBIDA Warr.

*Plectoneura albida* Warren, *Nov. Zool.*, iii. p. 390 (1896) (New Guinea).

1 ♂ 1 ♀ Utakwa River, 3000 ft., Jan. 1913.

## 425. BORBACHA RUBIDARIA sp. nov.

♀. Antennae white, pectinations brown; head yellow variegated with scarlet, frons and palpi brown with faint yellow lines; thorax and abdomen yellow strongly variegated with mauve crimson, patagia with apical half entirely mauve crimson. Wings golden yellow; basal  $\frac{3}{5}$  with numerous transverse deeply crenulated bands of scarlet and in forewing more densely and hindwing more sparsely patched with leaden grey-brown; outer  $\frac{2}{5}$  leaden grey-brown, a postdiscal line of 3 or 4 spots and some terminal lines and patches scarlet and yellow.

Expanse 48 mm. Length of forewing 22 mm.

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

## 426. BORBACHA PARDARIA FUSCESCENTIOR subsp. nov.

♂. Differs from *p. pardaria* Guen. in the ground colour being rusty buff, *not* ochre yellow, and in the main bands and spots being brownish lead grey, *not* greyish violet.

1 ♂ Base Camp, Jan. 1913.

## 427. SYNEZIA EUMELEATA (Walk.)

*Anisodes eumeleata* Walker, *List Lep. Ins. Brit. Mus.*, xxii. p. 649 (1861) (Sarawak).

1 ♂ Base Camp, Dec. 1912.

## 428. SYNTARACTA CLATHRATA Warr.

*Syntaracta clathrata* Warren, *Nov. Zool.*, xiii. p. 135 (1906) (New Guinea).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 429. BULONGA SUBCINEREA (Warr.)

*Antibadistes subcinerea* Warren, *Nov. Zool.*, iii. p. 142 (1896) (Amboina, Java).

1 ♀ Canoe Camp, Dec. 1912; 2 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912.

## 430. SCARDAMIA KLOSSI sp. nov.

♂. Antennae dark brown; head and thorax orange scarlet; abdomen yellowish wood-brown suffused with mauve, basal segment with transverse orange scarlet band in which is a black and silver spot. Wings orange scarlet, strigillated irregularly with dirty mauve; forewing, costa brownish mauve, an oblique metallic silver antemedian band bordered inwardly with brownish mauve, a mauve bar on discocellulars joining costa,

a broad composite transverse postmedian band inside metallic silver followed by rufous brown, then orange brown, and outside mauve pink, fringe crimson mauve.

Expanse 26 mm. Length of forewing 11.5 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

431. *CORYMICA SPECULARIA* (Moore)

*Caprilia specularia* Moore, *P.Z.S. Lond.*, 1867, p. 649, pl. 33, f. 11 (Assam).

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

432. *PETRODAVA GIBBOSA* Warr.

*Petrodava gibbosa* Warren, *Nov. Zool.*, x. p. 406 (1903) (New Guinea).

1 ♂ Base Camp, Nov. 1912 ; 1 ♀ Canoe Camp, Dec. 1912 ; 1 ♂ Utakwa River, sea level, Nov. 1912.

433. *NADAGARODES DUPLICIPUNCTA* Warr.

*Nadagarodes duplicipuncta* Warren, l.c., vi. p. 356 (1899) (Lousiades).

1 ♂ Base Camp, Jan. 1913 ; 1 ♂ Utakwa River, 3000 ft., Jan. 1913.

434. *CASSYMA HETERONEURATA* Guen.

*Cassyma heteroneurata* Guenée, *Spec. Gén. Lép. x. Uran. et Phal.*, ii. p. 19 (1857) (Borneo).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

435. *PROBITHIA EXCLUSA* (Walk.)

*Hemerophila ? exclusa* Walker, *List Lep. Ins. Brit. Mus.*, xxi. p. 320 (1860) (Moulmein).

1 ♂ Canoe Camp, Dec. 1912.

436. *AZATA VARIEGATA* Warr.

*Azata variegata* Warren, *Nov. Zool.*, iii. p. 302 (1896) (Fergusson).

1 ♂ 3 ♀♀ Base Camp, Jan. 1913 ; 2 ♂♂ Canoe Camp, Dec. 1912.

437. *ACADRA TESSELLATA* Warr.

*Acadra tessellata* Warren, *Nov. Zool.*, vi. p. 57 (1899) (New Guinea).

1 ♂ Utakwa River, 2500-3000 ft., Feb. 1913.

438. *GODONELA WOLLASTONI* sp. nov.

♂. Antennae brown ; head, thorax and abdomen grey cinnamon. *Forewing*, basal  $\frac{3}{5}$  obliquely to apex greyish cinnamon, irrorated with darker more rufous, a black cellular stigma, 3 bars running in from costa rufous, 2 long black spots and 3 yellow dots on costa near apex ; outer  $\frac{2}{5}$  obliquely from apex brownish mauve cinnamon, this outer



area separated from inner  $\frac{3}{5}$  by an orange rufous brown obliquely transverse band strongly angled at vein 5. *Hindwing* similar, but has wing divided in half by the transverse band; in inner half is a transverse rufous brown line. ♀ differs in being uniform ash grey on inner  $\frac{3}{5}$  of forewing irrorated with violet grey and outer  $\frac{2}{5}$  violet grey, the two innermost short bars from costa of ♂ are continued across to inner margin as yellow lines and the transverse band is double, outside chestnut, inside yellow, a white sub-apical smear; on hindwing transverse inner line absent.

Expanse, ♂ 30, ♀ 28 mm. Length of forewing, ♂ 13.5, ♀ 12.5 mm.

1 ♂ 3 ♀♀ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

#### 439. HYPOSIDRA INCOMPTARIA (Walk.)

*Laggyra incomptaria* Walker, *List Lep. Ins. Brit. Mus.*, xxxv, p. 1539 (1866) (Aru).

4 ♂♂ 1 ♀ Base Camp, Nov. 1912—March 1913.

#### 440. HYPOSIDRA RUFO-OCRACEA sp. nov.

♂. Antennae pale brown; head and thorax brownish cinnamon; abdomen ochraceous cinnamon, anal tuft buff. *Forewing* rufous ochraceous buff, irrorated with sooty brown-grey, basal  $\frac{1}{5}$  and basal  $\frac{1}{5}$  above obliquely to apex, median fold sooty grey, a grey-black bar from costa to median fold at discocellulars fading into rufous from median fold to inner margin. *Hindwing* cinnamon rufous irrorated and clouded with grey and cinnamon.

Expanse 48 mm. Length of forewing 21.5 mm.

1 ♂ Base Camp, Jan. 1913.

#### 441. HYPOSIDRA CASTANEORUFA sp. nov.

♂. Antennae brown with enormous peetinations, which in turn are densely hairy; head and thorax sooty mauve or purplish brown; abdomen chestnut cinnamon with chestnut red bands on basal and second segments. *Forewing* chocolate brown overlaid with a leaden grey glaze and powdered with white scales here and there forming lines and patches; an oblique rufous chocolate antemedian band and a black cellular stigma, a median rufous chestnut curved median line beginning below cell and a postmedian rufous chocolate band; between cell and the postmedian band is a large patch of bright chocolate red and an anteapical wedge-like patch of same colour. *Hindwing* similar, but with antemedian and median erenulate rufous chocolate lines and a rust-red irregular cloudy postmedian broad band; fringe of both wings rust red.

Expanse 54 mm. Length of forewing 24.5 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

442. *HYPOSIDRA PLAGOSA* sp. nov.

♂. Antennae black-brown; thorax and abdomen grey umber, apical  $\frac{1}{2}$  of patagia and patch on basal segment of abdomen sooty black-brown. *Forewing* yellowish grey wood-brown with a suffusion of umber brown and irrorated with dark brown; a white line on costa  $\frac{1}{4}$  from base, a curved chocolate brown antemedian line, a chocolate cellular stigma, a chocolate red patch beyond cell from which a median dark grey line runs to inner margin, a double crenulate median line, blackish grey inside, white outside, an anteapical chestnut red patch marked with white, a cloudy chocolate patch above tornus. *Hindwing* similar in ground colour, antemedian and median dark grey crenulate bands, the latter followed by an indistinct grey cloud-band which in turn is followed by a chocolate rufous one, a patch of greyish white above tornus.

Expanse 50 mm. Length of forewing 22.5 mm.

1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

443. *HYPOSIDRA SCHISTACEA* Warr.

*Hyposidra schistacea* Warren, *Nov. Zool.*, iii. p. 305 (1896) (Fergusson).

1 ♂ 1 ♀ Base Camp, Nov. 1912—Jan. 1913.

444. *ORTHOMETA FOLIACEA* sp. nov.

♂. Antennae clay grey; head and thorax clay grey with some black and rufous on edges of tegulae; abdomen yellowish clay grey. *Forewing*, basal  $\frac{1}{3}$  clay grey with a sinuate red transverse line within and a broad straight antemedian chocolate band edging this area; outer  $\frac{2}{3}$  violet brown-grey with some irregular clay-grey patches here and there; a postmedian double transverse line broadly interrupted between veins 3 and 6, below vein 3 this line is inside chocolate and outside yellowish clay grey, above vein 6 rust red; apex truncate excised, fringe chocolate. *Hindwing*: apex produced truncate deeply crenulate; yellowish clay cinnamon irrorated and strigillated with sooty grey, an indistinct antemedian line and some dark dots.

Expanse 48 mm. Length of forewing 22 mm.

1 ♂ Canoe Camp, Dec. 1912.

445. *ORTHOMETA ARGILLACEA* sp. nov.

♂. Antennae brown; head and thorax yellowish clay-colour; abdomen similar, last 3 segments and tuft whitish. *Forewing* clay buff slightly strigillated and irrorated with brown; a slightly oblique brown antemedian band, beyond which above inner margin is a black-brown patch with a burnt aspect, beyond middle of wing faint indications of shadow-bands. *Hindwing* clay buff strigillated and irrorated sparsely with brown,

which in basal and terminal fourths of wing assume somewhat the appearance of faint shadow-bands.

Expanse 42 mm. Length of forewing 18.5 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

#### 446. HYPOCHROSIS INCENSATA (Walk.)

*Fascellina incensata* Walker, *List Lep. Ins. Brit. Mus.*, xxvi, p. 1520 (1862) (Aru).

The two insects *cryptopyrrhata* Walk. and *incensata* Walk. must stand as *incensata*, for they intergrade completely.

5 ♂♂ 10 ♀♀ Base Camp, Nov. 1912 ; 5 ♂♂ Canoe Camp, Nov. 1912 ; 12 ♂♂ 3 ♀♀ Utakwa River, 2500-3000 ft., Feb. 1913.

#### 447. HYPOCHROSIS PSEUDOINCENSATA sp. nov.

♂. Much smaller than *incensata*, and the median bands of both wings more oblique. Antennae sooty black-grey ; head, thorax and abdomen plum purple mauve, lateral lines and anal tuft of abdomen orange. Wings plum purple mauve ; on *forewing* a broad glaucous green median band narrowing at costa and inner margin and containing an olive green narrower central band, a black spot on costa above the median band and a black oblique outer band along it to vein 4 ; on *hindwing* an oblique median glaucous green band margined with black and with central olive green band from abdominal margin to vein 6.

Expanse, *pseudoincensata* ♂ 30 mm., *incensata* ♂ 42 mm. Length of forewing, *pseudoincensata* 13.5 mm., *incensata* 19 mm.

1 ♂ Utakwa River, 2500-3000 ft., Feb. 1913.

#### 448. HYPOCHROSIS OLIVACEATA sp. nov.

♂. Antennae silver grey, pectinations blackish ; head, thorax and abdomen yellowish clay grey. *Forewing*, basal half yellowish clay grey, apical half paler ; a median oblique band of pale clay olive green, darker in centre, a median patch on and below costa and above inner margin purplish black-brown ; outer  $\frac{1}{4}$  of wing strongly suffused with sooty mauve grey. *Hindwing* yellowish clay grey with median pale clay olive green band darker in centre ; apex sooty mauve grey.

Expanse, 1st ♂ 36, 2nd ♂ 30 mm. Length of forewing, 1st ♂ 16, 2nd ♂ 13.5 mm.

1 ♂ Base Camp, Jan. 1913 ; 1 ♂ Canoe Camp, Dec. 1912.

#### 449. ZOMIA SEMIRUBRA Warr.

*Zomia semirubra* Warren, *Nor. Zool.*, xiv, p. 185 (1907) (New Guinea).

3 ♂♂ Utakwa River, 3000 ft., Jan. 1913.

450. *FASCELLINA CHROMATARIA* Walk.

*Fascellina chromataria* Walker, *List Lep. Ins. Brit. Mus.*, xx. p. 215 (1860) (Ceylon).

1 ♂ Base Camp, Nov. 1912; 1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

451. *AMBLYCHIA ANGERONARIA* Guen.

*Amblychia angeronaria* Guenée, *Spec. Gén. Lép.* ix. *Uran. et Phal.*, i. p. 215, pl. 4, f. 9 (1857) (Central India).

1 ♂ Base Camp, Nov. 1912.

452. *CHOGADA INFLEXARIA* (Snell.)

*Boarmia inflexaria* Snellen, *Tijdschr. Ent.*, xxiv. p. 72, pl. 8, fig. 2, 2a (1881) (Celebes).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

453. *CHOGADA ILLUSTRARIA* (Walk.)

*Boarmia illustraria* Walker, *List Lep. Ins. Brit. Mus.*, xxvi. p. 1539 (1862) (Moreton Bay).

1 ♂ Base Camp, Nov. 1912; 1 ♂ Utakwa River, 3000 ft., Jan. 1913.

454. *CARECOMOTIS PERFUMOSA* Warr.

*Carecomotis perfumosa* Warren, *Nov. Zool.*, iii. p. 402 (1896) (Queensland).

2 ♂♂ Canoe Camp, Dec. 1912.

455. *ALCIS CINNAMOMEA* sp. nov.

♂. Antennae rusty cinnamon; head, thorax and abdomen pale buffy cinnamon, head palest. *Forewing* buff pinkish cinnamon with some darker cinnamon clouding; a cinnamon rufous brown sinuated median line thickest at vein 3, two subapical spots and two antemedian costal streaks cinnamon rufous brown. *Hindwing* similar.

Expanse 44 mm. Length of forewing 20 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

456. *CATORIA SUBLAVARIA* (Guen.)

*Boarmia sublavaria* Guenée, *Spec. Gén. Lép.* ix. *Uran. et Phal.*, i. p. 256, No. 393 (1857) (Central India).

1 ♀ Base Camp, Nov. 1912.

457. *BOARMIA MICRODOXA* Meyr.

*Boarmia microdoxa* Meyrick, *Tr. Ent. Soc. Lond.*, p. 75 (1897) (Pulo Laut).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 458. MYRIOBLEPHORA SUBTRITA Warr.

*Myrioblephora subtrita* Warren, *Nor. Zool.*, x, p. 394 (1903) (New Guinea).

1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912 (very worn).

## 459. MYRIOBLEPHORA FASCIATA sp. nov.

♂. Antennae and head dark snuff brown; thorax coffee brown mixed with dull white; abdomen dull white powdered with earth brown. *Forewing* dull white, the basal half obliquely dusted with grey scales; a broad subbasal dark brown band, a cellular brown stigma, curved median and postmedian lines which from costa to vein 2 are dark brown and from vein 2 to inner margin clay buff, a postdiscal slightly sinuate broad band snuff brown, outer  $\frac{1}{5}$  of wing snuff brown with faint median whitish hair-line and a large median white patch. *Hindwing*, basal  $\frac{3}{4}$  dull white, outer  $\frac{1}{4}$  snuff brown; two double wavy lines from costa to vein 5, in basal  $\frac{3}{4}$  snuff brown; a white patch at or near vein 2 in outer  $\frac{1}{4}$ .

Expanse 28 mm. Length of forewing 13 mm.

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

## 460. MYRIOBLEPHORA CHOGADOIDES sp. nov.

♀. Antennae dark brown; head, thorax and abdomen whitish grey powdered densely with cinnamon brown, a dark brown mark on basal abdominal segment. Wings whitish grey irrorated with brown; a brown antemedian band on forewing and median and a sinuated forked postmedian cloudy transverse line brown; hindwing with double angulated cloud-band in centre of wing and a crenulated subterminal band brown.

Expanse 26 mm. Length of forewing 11.5 mm.

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

## 461. ECTROPIS SABULOSA Warr.

*Ectropis sabulosa* Warren, *Nor. Zool.*, iv, p. 94 (1897) (Amboina).

8 ♂♂ 1 ♀ Base Camp, Nov. 1912—Jan. 1913; 2 ♂♂ Canoe Camp, Nov. 1912.

## 462. ECTROPIS HYPOCHROMARIA Warr.

*Ectropis hypochromaria* Warren, *Nor. Zool.*, vi, p. 350 (1899) (New Guinea).

1 ♂ Base Camp, March 1913; 1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

## 463. ANOSIODES HYBRIDA Warr.

*Anosiodes hybrida* Warren, *l.c.*, x, p. 412 (1903) (New Guinea).

2 ♀♀ Utakwa River, 3000 ft., Jan. 1913.



## 464. ANOSIODES ? PSEUDOMELANOSCIA sp. nov.

♀. At first sight this remarkable insect appears to be a South American *Melanoscia*. Antennae buff with numerous black rings of varying breadth; head and tegulae buff variegated with black-brown; rest of thorax and abdomen sooty slate grey. *Forewing* black-brown, antemedian and median transverse bands buffy white with black dots within, an oblique transverse band from apex to inner margin and a longitudinal band expanding from base to termen yellowish buff with a few brown strigillations, basal half of wing strigillated with yellowish buff; wing, beyond oblique buff transverse band from apex, with lines and streaks of yellowish buff. *Hindwing* ash grey with whitish broad median band and some sooty markings in abdominal area.

Expanse 40 mm. Length of forewing 13.5 mm.

1 ♀ Utkwa River, 2500–3000 ft., Feb. 1913.

## 465. CYPRA DELICATULA Boisd.

*Cypra delicatula* Boisduval, *Voy. Astrolabe, Lép.*, p. 201, pl. 1, f. 3 (1832) (New Guinea).

2 ♂♂ 3 ♀♀ Base Camp, Nov. 1912—March 1913: 1 ♂ 1 ♀ Canoe Camp, Nov. 1912;  
2 ♂♂ 4 ♀♀ Utkwa River, 2500–3000 ft., Feb. 1913.

## 466. PANAETHIA DECORATA (Swinh.)

*Tigriodoptera decorata* Swinhoe, *Tr. Ent. Soc. Lond.*, p. 634 (1902) (New Guinea).

2 ♂♂ Base Camp, Nov. 1912—Jan. 1913.

## 467. BRACCA RIBBEI (Pag.)

*Celerena ribbei* Pagenstecher, *Jahrb. Nass. Ver. Nat.*, xxxix, p. 164 (1886) (Aru).

1 ♂ Base Camp, Jan. 1913.

## 468. CRASPEDOSIS ARUENSIS (Pag.)

*Celerena ernestina* var. *aruensis* Pagenstecher, l.c., p. 164 (1886) (Aru).

1 ♂ 2 ♀♀ Base Camp, Nov. 1912.

## 469. CRASPEDOSIS WOLLASTONI sp. nov.

♀. Antennae, head and thorax black, tegulae edged with yellow; abdomen yellow ringed with black. *Forewing* slate black glossed with blue; a curved longitudinal band above vein 1 lavender blue-grey, an oblique median band, an interrupted oblique post-discal band, a postmedian spot and a crenulate line from tornus to vein 2 lavender blue-grey washed with white. *Hindwing*, basal half cream white, base and basal half of

costal area above vein 7 grey ; outer half of wing and large discocellular stigma slaty blue-black, a broad interrupted crenulate band and 3 subterminal spots golden yellow.

Expanse 68 mm. Length of forewing 31.5 mm.

1 ♀ Utkwa River, 2500–3000 ft., Feb. 1913.

470. CRASPEDOSIS ALBIGUTTA Warr.

*Craspedosis albigutta* Warren, *Nor. Zool.*, iv. p. 241 (1897). (New Guinea).

1 ♀ Base Camp, Jan. 1913 ; 1 ♀ Canoe Camp, Nov. 1912.

471. CRASPEDOSIS LATICLAVA Warr.

*Craspedosis laticlava* Warr., *l.c.*, x. p. 387 (1903) (Fergusson).

1 ♂ 1 ♀ Base Camp, Nov. 1912—Jan. 1913 ; 1 ♀ Utkwa River, 2500–3000 ft., Dec. 1912.

472. CRASPEDOSIS SWINHOEI sp. nov.

♂ ♀. Allied to *norbeata* Swinh. Differs in having the whole abdomen, except basal half of basal segment, orange above ; in the ground colour being slaty grey-blue or blue-grey, *not* black, in the median white band of the forewings being nearly double as wide and extending to costa and inner margin, in the entire absence of the submarginal pale shadow-band on forewings in both sexes and almost entire absence on hindwing of ♀ and complete absence in hindwing of ♂.

Expanse, ♂ 44, ♀ 52 mm. Length of forewing, ♂ 20, ♀ 24 mm.

1 ♂ 1 ♀ Base Camp, Jan.—March 1913.

473. CRASPEDOSIS AFFINIS sp. nov.

♂ ♀. Also allied to *norbeata*. Antennae, head and thorax black ; abdomen, basal  $\frac{1}{2}$  black, apical half orange, and tuft black. *Forewing* black ; an oblique transverse submedian band white, occupying  $\frac{1}{3}$  of wing, widest at inner margin. *Hindwing* black.

Expanse, ♂ 48, ♀ 54 mm. Length of forewing, ♂ 22, ♀ 25 mm.

1 ♂ Base Camp, Nov. 1912 ; 1 ♀ Utkwa River, 2500–3000 ft., Feb. 1913.

474. CRASPEDOSIS MUNDA AFLAVA subsp. nov.

♀. Differs from *m. munda* in the entire absence of the buffy yellow edges to the white central band of the wings.

1 ♀ Base Camp, Dec. 1912 ; 1 ♀ Utkwa River, 2500–3000 ft., Feb. 1913.

475. CRASPEDOSIS OVALIS Warr.

*Craspedosis ovalis* Warren, *Nor. Zool.*, iii. p. 399 (1896) (New Guinea).

2 ♂♂ 1 ♀ Base Camp, Nov. 1912—Jan. 1913.

## 476. CRASPEDOSIS OVIPLAGA sp. nov.

♂. Allied to *pudaria* Warr. Differs from it by the much *larger* egg-shaped patch of white on the forewing and the *smaller* also more egg-shaped white patch on hindwing; the latter patch also is placed more in the centre of wing between veins 2 and 7, not reaching to costa and abdominal margin as in *pudaria*; it also differs in having a white apical fringe to forewing.——♀ similar, but lacking white apical fringe.

Expanse, ♂ 38, ♀ 44 mm. Length of forewing, ♂ 17, ♀ 20 mm.

1 ♂ Base Camp, Nov. 1912; 1 ♀ Canoe Camp, Nov. 1912; 1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913 (type).

## 477. CRASPEDOSIS NIGERRIMA Warr.

*Craspedosis nigerrima* Warren, *Nov. Zool.*, x. p. 388 (1903) (Aroa R.).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 478. CRASPEDOSIS AURIGUTTA Warr.

*Craspedosis aurigutta* Warren, *Nov. Zool.*, ix. p. 366 (1902) (New Guinea).

Some of the ♂♂ have the orange patch very much reduced.

7 ♂♂ 4 ♀♀ Utakwa River, 4000–6000 ft., Dec. 1912—Jan. 1913; 2 ♂♂ 5 ♀♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

## 479. CRASPEDOSIS MIRANDINA sp. nov.

♂ ♀. Entirely blue-black; a large ovate oblique white band on forewing between vein 1 and subcostal vein. This species is closely allied to *miranda* Warr.

Expanse 42 mm. Length of forewing 19 mm.

3 ♂♂ 1 ♀ Base Camp, Nov. 1912; 1 ♂ 1 ♀ Canoe Camp, Dec. 1912.

## 480. BIZARDA CLARISSIMA Walk.

*Bizardea clarissima* Walker, *List Lep. Ins. Brit. Mus.*, xxxi. p. 163 (1864) (Aru).

1 ♀ Canoe Camp, Dec. 1912; 2 ♀♀ Utakwa River, 2500–6000 ft., Jan.—Feb. 1913.

## 481. BURSADA INVADENS Warr.

*Bursada basistriga invadens* Warren, *Nov. Zool.*, vi. p. 45 (1899) (St. Aignan).

I consider this a distinct species, NOT a form of *basistriga*.

2 ♂♂ Base Camp, Nov. 1912; 21 ♂♂ Utakwa River, 4000–6000 ft., Dec. 1912—Jan. 1913; 5 ♂♂ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

## 482. BURSADA SUSPENS A Swinh.

*Bursada suspensa* Swinhoe, *Tr. Ent. Soc. Lond.*, p. 637 (1902) (New Guinea).

1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912.

483. *BURSADOPSIS APICIPUNCTA* Warr.

*Bursadopsis apicipuncta* Warren, *Nor. Zool.*, viii. p. 198 (1901) (New Guinea).

3 ♂♂ 4 ♀♀ Base Camp, Nov. 1912—March 1913; 1 ♂ 3 ♀♀ Canoe Camp, Nov. 1912; 1 ♂ 1 ♀ Utaqua River, sea level, Nov. 1912; 2 ♂♂ Utaqua River, 2500-3000 ft., Feb. 1913.

484. *BURSADOPSIS CIRCUMDUCTA* Warr.

*Bursadopsis circumducta* Warren, *l.c.*, ix. p. 366 (1902) (New Guinea).

2 ♂♂ 2 ♀♀ Base Camp, Dec. 1912—Jan. 1913; 1 ♂ Canoe Camp, Nov. 1912; 2 ♂♂ 3 ♀♀ Utaqua River, 2500-3000 ft., Dec. 1912—Feb. 1913.

485. *BORDETA KLOSSI* sp. nov.

This species is dimorphic, the ordinary form having the outer half only of hindwing black and the abdomen yellow with narrow black rings; the second form has the whole abdominal area broadly black, so that the large orange yellow area is much reduced and appears as a large oval patch in central area of wing, and the abdomen is black with narrow yellow rings.

♂. Antennae black-brown, cilia white; head and thorax black, collar and base of tegulae lemon yellow; abdomen orange yellow with narrow black rings. *Forewing* velvety black; a broad oblique orange median band from vein 2 to subcostal nervure; a post-discal oblique orange patch from vein 4 to above vein 6 and a minute submarginal orange dot on vein 3. *Hindwing* base, costal area to just above vein 7, and outer  $\frac{2}{3}$  of wing velvety black, inner  $\frac{3}{5}$  orange. ♀ differs in having on forewing an orange patch, almost as large as the postdiscal patch, on vein 3 instead of a mere dot, and in the black outer portion of hindwing being much wider and containing a large irregular orange patch. Form dimorph. *nigrescens* differs in both sexes in having the abdominal area of hindwing broadly black, so that the basal orange portion of wing is reduced to a large ovate discal patch and the abdomen is black narrowly ringed with yellow.

Expanse, ♂ 56-60, ♀ 54-66 mm. Length of forewing, ♂ 25.5-27, ♀ 24.5-30 mm.

8 ♂♂ 3 ♀♀ and 2 ♀♀ f. d. *nigrescens* Base Camp, Nov. 1912—March 1913; 1 ♂ and 2 ♂♂ f. d. *nigrescens* Canoe Camp, Nov.—Dec. 1912; 1 ♂ and 2 ♀♀ f. d. *nigrescens*, Utaqua River, 2500-3000 ft., Dec. 1912—Feb. 1913.

486. *BORDETA BURSADOIDES* sp. nov.

♂. This rather small species has quite the facies of a large *Bursada*. Antennae black-brown; head black; tegulae greyish white, rest of thorax black; abdomen, basal segment black, 2nd and 3rd segments, anterior half golden yellow, posterior half black, rest of abdomen black, a very narrow ring of yellow on anterior part of 4th segment, anal tuft black edged with yellow. ABOVE, *forewing* velvety black, a broad oblique band of golden

yellow beyond middle of wing reaching from subcostal nervure to beyond vein 3. *Hind-wing*, base black, median portion of wing golden yellow, a very wide border occupying  $\frac{2}{5}$  of the wing velvety black. BELOW, whole of thorax greyish buffy white, abdomen entirely golden yellow with 2 minute lateral black dots; *forewing*, oblique golden band broader and reaching costal edge; *hindwing* entirely golden yellow, the black border much narrower.

♀ similar, but wings shorter and broader and oblique golden band on forewing wider.

Expanse, ♂ 51 mm., ♀ 46 mm. Length of forewing, ♂ 23 mm., ♀ 21 mm.

1 ♀ Base Camp, Dec. 1912. (♂ type Aroa River, A. S. Meek.)

487. *LOBOCRASPEDA COERULEOSTRIGA LATEFASCIA* subsp. nov.

♂. Differs from *c. coeruleostriga* Warr. in the band on the forewing being much wider and the yellow basal portion of hindwing being also much larger.

1 ♂ Utakwa River, 4000–6000 ft., Dec. 1912—Jan. 1913.

488. *LOBOCRASPEDA COERULEONITENS* sp. nov.

♂ ♀. Antennae black; head and thorax black glossed with dark blue; abdomen velvety black, segments 2 and 3 reddish orange. *Forewing* deep metallic steel blue. *Hind-wing* deep metallic steel blue, strongly excised from tornus to beyond vein 1; in the ♂ there is a small reddish orange spot in the middle of abdominal margin; abdominal area black.

Expanse 28 mm. Length of forewing 22 mm.

5 ♂♂ 4 ♀♀ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

489. *MILIONIA TRICOLOR* (Feld.)

*Automolodes tricolor* Felder, *Reise Novara*, pl. 130, fig. 10 (1874) (New Guinea).

3 ♀♀ Base Camp, Nov. 1912—March 1913; 3 ♂♂ Utakwa River, 2500–3000 ft., Feb. 1913.

490. *MILIONIA PARADISEA* Jord.

*Milionia paradisea* Jordan, *Nov. Zool.*, vol. x. p. 316 (1903) (Upper Aroa River).

1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

491. *MILIONIA RAWAKENSIS* Quoy & Gaimard.

*Milionia rawakensis* Quoy & Gaimard, *Frey. Voy. aut. du Monde*, p. 518, pl. 83, f. 6 (1824) (New Guinea).

8 ♂♂ 4 ♀♀ Base Camp, Nov. 1912—Jan. 1913; 2 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912—Feb. 1913.



492. *MILIONIA EICHORNI* Rothsch. & Jord.

*Milionia eichorni* Rothschild & Jordan, *Nor. Zool.*, vol. x, p. 486 (1903) (Upper Aroa River).

1 ♀ Base Camp, Nov. 1912.

493. *DYSPHANIA TYRIANTHINA* (Butl.)

*Euschema tyrianthina* Butler, *Ann. Mag. N. H.* (4) 10, p. 231, No. 56 (1882) (Duke of York).

1 ♂ Base Camp, Nov. 1912; 1 ♂ Canoe Camp, Nov. 1912.

## LARENTIINAE

There are 13 species of this subfamily, of which 9 are new.

494. *CAMBOGIA CYMATODES* (Mey.)

*Cretheis cymatodes* Meyrick, *Trans. Ent. Soc. Lond.*, p. 193 (1886) (New Hebrides).

1 ♂ Utaqua River, 2500–3000 ft., Dec. 1912.

495. *LASIOEDMA PURPUREORUFA* sp. nov.

♂. Antennae rusty brown, pectinated; head, thorax and abdomen dull pinkish maroon. *Forewing* dragon's-blood maroon fading into brownish grey obliquely from inner margin to apex; a subterminal line of small spots and postdiscal patches at veins 2 and 4 buffy white, some indistinct striae run in from inner margin. *Hindwing* dragon's-blood maroon with a number of dark grey ill-defined transverse striae-like lines and some whitish subterminal marks.

Expanse 34 mm. Length of forewing 15.5 mm.

1 ♂ Utaqua River, 3000 ft., Jan. 1913.

496. *XANTHORHOE VULGARIS* sp. nov.

♂. A very common-looking insect. Antennae deeply pectinated grey; head and thorax yellowish wood-grey; abdomen dull wood-grey. *Forewing* ash grey with a number of brownish spots on costa; broad multiple antemedian and postmedian crenulated bands dark reddish brown-grey and a similar but cloud-like subterminal band. *Hindwing* pale grey with shadowy indications of transverse lines.

♀ similar, but grey of forewing purer and bands better defined.

Expanse, ♂ 28, ♀ 32 mm. Length of forewing, ♂ 13, ♀ 15 mm.

11 ♂♂ 19 ♀♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

497. *XANTHORHOE PALLIDA* sp. nov.

♂. Antennae brownish grey; head and thorax dull brown; abdomen greyish white powdered with brown. *Forewing* greyish white; basal, antemedian and median brown-grey multiple crenulated bands, beyond the median band 2 hairlines crenulated and

submarginal and marginal crenulated bands, pale yellowish grey. *Hindwing* greyish cream white with numerous indistinct crenulated pale yellowish grey lines.

Expanse 36 mm. Length of forewing 17 mm.

1 ♂ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

498. *COLLIX STICTICATA* Warr.

*Collix sticticata* Warren, *Nov. Zool.*, ix. p. 361 (1902) (Solomons).

2 ♀♀ Canoe Camp, Dec. 1912.

499. *CRASILOGIA SUBFLAVA* Warr.

*Crasilogia subflava* Warren, *l.c.*, xiv. p. 147 (1907) (New Guinea).

1 ♀ Uakwa River, 3000 ft., Jan. 1913.

500. *DIACTINIA (EUPHYIA) NOTATA* sp. nov.

♂. Antennae grey-brown; head greyish ochraceous; thorax rich brown mixed with greyish ochraceous; abdomen, basal segment yellow-buff, rest maroon grey, a brown spot on 2nd segment. *Forewing* rich dark brown; a broad angulated antemedian band of mixed rufous and pale brown edged on each side by white, a broad postdiscal band of rufous from inner margin to vein 8 edged on inner side by a crenulated white line continued to costa; between the antemedian band and the postdiscal band is a longitudinal buff bar from which proceeds a transverse short bar to costa, below the outer half of bar are two confluent oval silver grey patches. Between the postdiscal band and the termen from apex to vein 3 is an ill-defined coalescent band of white buff and rufous mixed, subterminal area coffee brown; fringe dark brown-grey. *Hindwing* ash grey; a blackish cellular stigma, crenulated postmedian and submarginal greyish white lines and traces of a similar antemedian one.

Expanse 32 mm. Length of forewing 15 mm.

1 ♂ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

501. *MEGALOPA POSTRUBIDARIA* sp. nov.

♀. Antennae pale brick-red; head, thorax and abdomen moss green. *Forewing* dark viridian green with a strong satiny sheen; base of wing, broad crenulated antemedian, median, and postmedian bands blackish dark green, the latter interrupted between veins 3 and 4; each band finely edged outwardly with white. *Hindwing* pale brick-red.

Expanse 38 mm. Length of forewing 17.5 mm.

2 ♀♀ Uakwa River, 2500–3000 ft., Feb. 1913.

## 502. SAURIS MUSCOSA sp. nov.

♀. Antennae grey-brown; head, thorax and abdomen greenish buffy grey. *Forewing* whitish grey with 8 crenulate transverse dull dark lime-green bands; 2 dark spots on 7th band. *Hindwing* pearl grey.

Expanse 24 mm. Length of forewing 11 mm.

1 ♀ Utkwa River, 3000 ft., Jan. 1913.

## 503. EUCYMATOGE (EUPITHECIA) EUPITHECIATA (Guen.)

*Acidalia eupitheciata* Guenée, *Spec. Gén. Léop.*, vol. ix, *Uran, et Phal.* i., p. 461, No. 767 (1857) (Brazil!).

1 ♀ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

## 504. PSALIODES ? OLIVACEA sp. nov.

♂. Antennae brown; head rusty ochraceous; thorax and abdomen dirty buffish olive. *Forewing* olivaceous apple green; a subbasal sinuate double black-and-white line, a greenish cream antemedian band, a broad median band ash grey edged each side with a double hair-line black and white, a postmedian band and subterminal row of spots greenish cream. *Hindwing*, basal  $\frac{2}{3}$  whitish grey, outer  $\frac{1}{3}$  and median band olivaceous apple green.

Expanse 12 mm. Length of forewing 5 mm.

1 ♂ Utkwa River, 3000 ft., Jan. 1913.

## 505. PSALIODES ? VIRIDITINCTA sp. nov.

♀. Antennae whitish grey; head, thorax and abdomen yellowish moss green. *Forewing* yellowish moss green; subbasal and forked median bands brown-grey edged with black. *Hindwing* greenish white; a median grey-brown band and postdiscal and submarginal yellowish moss-green bands.

Expanse 16 mm. Length of forewing 7 mm.

1 ♀ Utkwa River, 2500–3000 ft., Feb. 1913.

## ACIDALIINAE

Of this subfamily 11 species were sent, of which 3 are new.

## 506. NOBILIA TURBATA Walk.

*Nobilis turbata* Walker, *List Lep. Ins. Brît. Mus.*, xxiv, p. 1098 (1862) (Sarawak).

1 ♂ Base Camp, Jan. 1913; 1 ♂ Canoe Camp, Dec. 1912.

## 507. GNAPTOLOMIA AVENTIARIA (Guen.)

*Timandra aventiaria* Guenée, *Spec. Gén. Léop.*, vol. x, *Uran, et Phal.* ii., p. 3, No. 896 (1857) (Australia).

3 ♀♀ Base Camp, Nov. 1912—Jan. 1913; 1 ♂ Utkwa River, sea level, Nov. 1912.

508. *ACIDALIA EXANGULATA* (Warr.)

*Craspedia exangulata* Warren, *Nov. Zool.*, vi. p. 332 (1899) (New Guinea).

2 ♀♀ Canoe Camp, Dec. 1912 ; 3 ♂♂ 1 ♀ Utaqua River, 3000 ft., Jan. 1913.

509. *ACIDALIA GRISEOLINEATA* sp. nov.

♀. Antennae whitish ; head, thorax and abdomen pale grey. Wings pale grey tinged with buffish ; antemedian, median and 3 postmedian transverse lines darker grey ; a darker grey cellular stigma in each wing.

Expanse 16 mm. Length of forewing 7 mm.

1 ♀ Utaqua River, 3000 ft., Jan. 1913.

510. *ACIDALIA LACTEISABULOSA* sp. nov.

♂. Antennae, head, thorax and abdomen creamy sand buff, serrations of antennae rusty brown. *Forewing* creamy sand buff ; antemedian, median and postmedian crenulate darker but shadowy lines, beyond which are 2 others much fainter ; stigma and terminal row of minute dots black. *Hindwing* creamy sand buff, bands similar but antemedian absent, stigma and subterminal dots black.

Expanse 22 mm. Length of forewing 10 mm.

1 ♂ Base Camp, Dec. 1912 ; 1 ♂ Canoe Camp, Dec. 1912.

511. *ANISODES WARRENI* sp. nov.

♂. Uniform greyish sandy buff. *Forewing* with 4 crenulated darker shadow-lines, postmedian and terminal rows of some scattered discal spots black-brown. *Hindwing* similar, but with an annular cell stigma.

Expanse 25 mm. Length of forewing 11 mm.

2 ♂♂ Base Camp, March 1913 ; 1 ♂ Canoe Camp, Nov. 1912 ; 1 ♂ Utaqua River, sea level, Nov. 1912.

512. *ANISODES SUBSIMILIS* (Warr.)

*Perixera subsimilis* Warren, *Nov. Zool.*, iv. p. 394 (1897) (Celebes).

1 ♂ Base Camp, Jan. 1913.

513. *ANISODES (PISORACA) PUNCTATA* (Warr.)

*Pisoraca punctata* Warren, l.c., p. 222 (1897) (Queensland).

1 ♀ Base Camp, Jan. 1913.

514. *ANISODES (PHIRISSOSCELES) ARGYROMMA* (Warr.)

*Phrissosceles argyromma* Warren, l.c., iii. p. 114 (1896) (Khasia Hills, Assam).

1 ♀ Base Camp, March 1913.

## HEMITHEINAE

Dr. Wollaston collected 25 species of this subfamily, 2 of which are new.

515. *PINGASA ACUTANGULA* Warr.

*Pingasa acutangula* Warren, l.c., x. p. 352 (1903) (New Guinea).

1 ♂ Base Camp, March 1913.

516. *AEOLOCHROMA SUFFUSA* (Warr.)

*Actenochroma prasina* ab. *suffusa* Warren, l.c., iii. p. 283 (1896) (Fergusson).

1 ♂ Utkwa River, 3000 ft., Jan. 1913.

517. *DIOSCARE BICOLOR* (Warr.)

*Halterophora bicolor* Warren, l.c., iii. p. 290 (1896) (Fergusson).

2 ♂♂ Base Camp, Dec. 1912-March 1913.

518. *DIOSCARE PUNCTIFIMBRIA* (Warr.)

*Hemistola* (?) *punctifimbria* Warren, l.c., x. p. 358 (1903) (New Guinea).

1 ♂ Utkwa River, 2500-3000 ft., Dec. 1912.

519. *ANISOZYGA NIGRIMACULATA* Warr.

*Anisozygga nigrimaculata* Warren, *Nov. Zool.*, iv. p. 35 (1897) (New Guinea).

2 ♂♂ Utkwa River, 3000 ft., Jan. 1913.

520. *ANISOZYGA BICOLOR* sp. nov.

♀. Antennae rufous yellow; head white with slight mauve tinge; thorax mauve brown-grey, tegulae and base of patagia apple green; abdomen whitish mauve grey. *Forewing* mauve grey strigillated and banded with mauve brown; a large median apple-green patch reaching from inner margin to lower edge of cell. *Hindwing*, base and outer half mauve grey densely powdered and strigillated with mauve brown; disc of wing apple green.

Expanse 36 mm. Length of forewing 16.5 mm.

1 ♀ Canoe Camp, Dec. 1912.

521. *ANISOZYGA POLYLEUCOTES ADORNATA* Prout

*Anisozygga polyleucotes* ab. *adornata* Prout, *Nov. Zool.*, xx. p. 406 (1913) (New Guinea).

1 ♂ Utkwa River, 3000 ft., Jan. 1913.

522. *ANISOZYGA ALBINATA* (Warr.)

*Anisogamia flavilinea* ab. *albinata* Warren, *Nov. Zool.*, xiii. p. 80 (1906) (New Guinea).

1 ♂ Canoe Camp, Dec. 1912; 1 ♂ Utkwa River, 3000 ft., Jan. 1913.



## 523. ANISOZYGA FRAGMENTATA (Warr.)

*Anisogamia fragmentata* Warren, *Nor. Zool.*, xiv. p. 127 (1907) (New Guinea).

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

## 524. ULIOCNEMIS ELEGANS Warr.

*Uliocnemis elegans* Warren, *Nor. Zool.*, vi. p. 28 (1899) (St. Aignan).

1 ♀ Base Camp, Jan. 1913.

## 525. COMIBAENA MARIAE (Luc.)

*Proboloscicles mariac* Lucas, *Proc. Linn. Soc. N.S.W.*, p. 1266 (1888) (Brisbane).

1 ♂ Base Camp, Dec. 1912.

## 526. GALASMA COERULEA (Warr.)

*Anisogamia coerulea* Warren, *Nor. Zool.*, x. p. 354 (1903) (New Guinea).

1 ♂ Utakwa River, 4000–6000 ft., Jan.—Feb. 1913.

## 527. THALASSODES BYRSOPIS Meyr.

*Thalassodes byrsopis* Meyrick, *Proc. Linn. Soc. N.S.W.*, p. 249 (1886) (Fly River).

2 ♂♂ Base Camp, Jan. 1913; 1 ♂ Canoe Camp, Dec. 1912.

## 528. THALASSODES ZEBRATA Warr.

*Thalassodes zebra* Warren, *Nor. Zool.*, xiii. p. 90 (1906) (New Guinea).

2 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

## 529. PRASINOCYMA STRIGICOSTATA (Warr.)

*Chlorochroma strigicostata* Warren, *Nor. Zool.*, xix. p. 77 (1912) (New Guinea).

2 ♂♂ Utakwa River, 3000 ft., Jan. 1913.

## 530. PRASINOCYMA POLLUTA (Warr.)

*Chlorochroma polluta* Warren, *Nor. Zool.*, x. p. 356 (1903) (New Guinea).

2 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

## 531. PRASINOCYMA PERPOLLUTA Prout

*Prasinocyma perpolluta* Prout, *Nor. Zool.*, xx. p. 430 (1913) (New Guinea).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 532. PRASINOCYMA INTERMEDIA APPROXIMATA Prout

*Prasinocyma intermedia approximata* Prout, l.c. (New Guinea).

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

## 533. PRASINOCYMA COROLLA Prout

*Prasinocyma corolla* Prout, l.c., p. 431 (1913) (New Guinea).

3 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912–Jan. 1913.

## 534. STREPSICHLORA MEGASPILA (Warr.)

*Blechromopsis megaspila* Warren, *Nor. Zool.*, xix, p. 74 (1912) (New Guinea).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 535. OXYCHORA TENUIS Warr.

*Oxychora tenuis* Warren, *Nor. Zool.*, v, p. 236 (1898) (Buru).

1 ♂ Base Camp, Jan. 1913.

## 536. OXYCHORA ASSIMILIS sp. nov.

♂. Allied to *dentilinea* Warr. Antennae white, pectinations golden brown: head and thorax olivaceous apple green; abdomen whitish. *Forewing* olivaceous apple green; costa and fringe rusty mauve grey, a white spot in cell and an irregular postmedian line of white spots. *Hindwing* olivaceous apple green; an irregular indistinct postmedian line of white spots, fringe rusty mauve grey.

Expanse 28 mm. Length of forewing 12.5 mm.

1 ♂ Base Camp, Nov.—Dec. 1912.

## 537. GIGANTOTHEA GIGAS Warr.

*Gigantothoe gigas* Warren, *Nor. Zool.*, x, p. 355 (1903) (New Guinea).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 538. METALLOCHLORA DECORATA (Warr.)

*Thalcrura* (?) *decorata* Warren, l.c., iii, p. 369 (1896) (Queensland).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## OENOCHROMINAE

The collection contains 13 species of this subfamily.

## 539. DERAMBILA STRIGICOSTA (Warr.)

*Rambara strigicosta* Warren, *Nor. Zool.*, x, p. 349 (1903) (New Guinea).

2 ♂♂ 6 ♀♀ Base Camp, Jan.—March 1913: 1 ♂ Canoe Camp, Nov. 1912; 3 ♂♂ Utakwa River, sea level, 3000 ft., Nov. 1912—March 1913.

## 540. CALLIPOTNIA ANGULIFERA Prout

*Callipotnia angulifera* Prout, *Nor. Zool.*, xx, p. 394 (1913) (New Guinea).

1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

541. *PHYSETOSTEGE MIRANDA* Warr.

*Phycetostegia miranda* Warren, *Nov. Zool.*, iii. p. 99 (1896) (New Guinea).

6 ♂♂ 1 ♀ Base Camp, Nov. 1912—Jan. 1913.

542. *OZOLA MACARIATA* (Walk.)

*Zarnigethusa macariata* Walker, *List Lep. Ins. Brit. Mus.*, xxvi. p. 1637 (1862) (Ceram).

1 ♂ Base Camp, March 1913.

543. *DERXENA NIVEA DISCATA* Warr.

*Derxena discata* Warren, *Nov. Zool.*, iv. p. 206 (1897) (New Guinea).

1 ♂ 1 ♀ Base Camp, Dec. 1912 ; 3 ♂♂ 2 ♀♀ Utakwa River, 2500–3000 ft., Jan.—Feb. 1913.

544. *CELERENA LERNE* (Boisd.)

*Callimorpha lerne* Boisduval, *Voy. Astrol., Lép.* p. 207 Pl. 5, f. 2 (1832) (New Guinea).

3 ♂♂ 3 ♀♀ Base Camp, Nov. 1912—March 1913 ; 5 ♂♂ 1 ♀ Canoe Camp, Nov. 1912 ; 2 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912—Feb. 1913.

545. *CELERENA PERITHEA* (Cram.)

*Phalaena perithea* Cramer, *Pap. Exot.* ii. p. 116. pl. 172, f. D (1779) (Amboina).

2 ♂♂ 1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912—Feb. 1913.

546. *CELERENA MUTATA* Walk.

*Celerena mutata* Walker, *List Lep. Ins. Brit. Mus.*, xxxi. p. 167 (1864) (Mysol).

1 ♂ 4 ♀♀ Base Camp, Nov. 1912—March 1913 ; 1 ♀ Canoe Camp, Nov. 1912 ; 1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

547. *EUMELIA AURELIATA* Guen.

*Eumelia aureliata* Guenée, *Spec. Gén. Lép.*, vol. ix., *Uran. et Phal.* i., p. 394, No. 631 (1857) (Ceylon).

1 ♀ Base Camp, Nov. 1912.

548. *EUMELIA UNIPUNCTA* Warr.

*Eumelia unipuncta* Warren, *Nov. Zool.*, iii. p. 281 (1896) (Fergusson).

1 ♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

549. *EUMELIA LUDOVICATA* Guen.

*Eumelia ludovicata* Guenée, *Spec. Gén. Lép.* vol. ix. *Uran. et Phal.* i. p. 393, No. 629 (1857) (Ceylon).

2 ♂♂ Base Camp, Nov. 1912—Jan. 1913.

550. *EUMELIA ROSALIA SANGUINATA* Warr.

*Eumelia sanguinata* Warren, *Nov. Zool.*, ii. p. 84 (1895) (Eastern Indo-Malaya).

1 ♀ Base Camp, Nov. 1912; 1 ♀ Canoe Camp, Dec. 1912.

551. *ALEX CONTINUARIA* (Walk.)

*Orgalima continuaria* Walker, *List Lep. Ins. Brit. Mus.*, xxxv. p. 1617 (1866) (Morty).

1 ♂ 2 ♀♀ Base Camp, Jan. 1913.

## BOMBYCIDAE

The collection contained 1 species only of this family, and which is new.

552. *GUNDA FLAVOLIVACEA* sp. nov.

♀. Antennae sooty grey; head and thorax orange tinged slightly with olive; abdomen olivaceous maroon, anal tuft greyish white. *Fore-* and *hindwing* golden orange with 2 postmedian and 1 terminal olivaceous maroon bands; between these bands the wing is so strongly suffused with olivaceous maroon as to considerably conceal the orange ground colour.

Expanse 52 mm. Length of forewing 23 mm.

1 ♀ Canoe Camp, Oct. 1912.

## URANIIDAE

Dr. Wollaston procured 24 species of this family, of which 5 species and 3 subspecies are new.

553. *ALCIDIS ARUUS* Feld.

*Alcidis aruus* Felder, *Reise Novara, Lep.*, vol. ii., part 2, pl. cxxi, f. 1 (1875) (Aru Islds.).

12 ♂♂ 15 ♀♀ Base Camp, Nov.—Dec. 1912; 1 ♀ Canoe Camp, Nov. 1912; 11 ♂♂ 4 ♀♀ Utaqua River, 2500–3000 ft., Feb. 1913.

554. *ALCIDIS LIRIS SORDIDIOR* subsp. nov.

♂. *Above*, differs from *l. liris* Feld. by the median band of forewing being broader and duller, and on the hindwing the band is much broader and dull metallic steel green; the pale blue is also absent between veins 1a and 3, only the tail being pale blue with 2 black patches.

Expanse 112 mm. Length of forewing 51 mm.

1 ♂ Base Camp, Nov. 1912.

## 555. MICRONIA JUSTARIA Walk.

*Micronia justaria* Walker, *List Lep. Ins. Brit. Mus.*, xxiii. p. 821 (1861) (Dorey, New Guinea).

1 ♀ Base Camp, March 1913 : 3 ♂♂ Utakwa River. 2500–3000 ft., Feb. 1913.

## 556. MICRONIA ADJUDICATARIA Walk.

*Micronia adjudicataria* Walker, *List Lep. Ins. Brit. Mus.*, xxiii. p. 822 (1861) (Java).

1 ♀ Base Camp, March 1913.

## 557. STROPHIDIA DIRECTARIA (Walk.)

*Micronia directaria* Walker, *List Lep. Ins. Brit. Mus.*, xxxv. p. 1640 (1866) (Aru).

1 ♂ 1 ♀ Base Camp, Nov. 1912—Jan. 1913 : 1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

## 558. ACROPTERIS BIPUNCTATA (Warr.)

*Stesichora apicipuncta* ab. *bipunctata* Warren, *Nor. Zool.*, iii. p. 344 (1896) (Biak).

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

## 559. ACROPTERIS PUELLARIA Walk.

*Acropteris puellaria* Walker, *List Lep. Ins. Brit. Mus.*, xxxv. p. 1641 (1866) (New Guinea).

2 ♂♂ Base Camp, Nov. 1912—Jan. 1913 : 1 ♂ Canoe Camp, Nov. 1912 ; 1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

One ♂ from Base Camp is almost identical with the ab. *obsolescens* Warr.

## 560. ACROPTERIS QUADRIPUNCTATA (Warr.)

*Stesichora quadripunctata* Warren, *Nor. Zool.* iii. p. 274 (1896) (Fergusson Isl.).

1 ♀ Base Camp, March 1913 ; 1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912.

## 561. ACROPTERIS BASIGUTTARIA (Walk.)

*Micronia basiguttaria* Walker, *List Lep. Ins. Brit. Mus.*, xxxv. p. 1641 (1866) (Mysol).

2 ♂♂ 1 ♀ Base Camp, Nov. 1912—March 1913.

## 562. URAPTEROIDES APPROXIMANS Swinh.

*Urapteroides approximans* Swinhoe, *Ann. Mag. N. H.* (7), ix. p. 415 (1902) (Key).

1 ♀ Base Camp, Nov. 1912.

## 563. URAPTEROIDES ASTHENIATA (Guen.)

*Micronia astheniata* Guenée, *Spec. Gén. Lép., Uran.*, ii. p. 24 (1857) (Borneo).

1 ♂ Canoe Camp, Nov. 1912.



## 564. URAPTEROIDES ATROMENTARIA EXTENSA subsp. nov.

♂. Differs from *a. atromentaria* Warr. *above* by the greater extent of white on forewing and the more brownish and paler grey of dark parts. *Below* the dark areas are much paler and more earth brown while the white parts are so suffused with brown as to appear sooty.

Expanse 54 mm. Length of forewing 24 mm.

1 ♂ Base Camp, Nov. 1912.

## 565. URAPTEROIDES SWINHOEI sp. nov.

♂. Antennae fuscous; frons white, vertex brown; thorax and abdomen white. *Forewing* white, a broad costal and terminal border earth brown, the costal border somewhat irrorated with grey. *Hindwing* white with earth-brown fringe, a broad submarginal band from near apex to tornus, the tornal half paler; a black-brown large spot in tail, and a similar one between tail and tornus, and a dark line above tornus, an indistinct trace of an earth-yellow median band starting from abdominal margin. Some specimens have this band on hindwing complete and two similar discal ones obliquely crossing the forewing; while others show no trace of these bands on either wing.

Expanse 62–74 mm. Length of forewing 28–32 mm.

2 ♂♂ Base Camp, Jan.—March 1913; 18 ♂♂ Utakwa River, 2500–3000 ft., Feb. 1913.

## 566. EPIPLEMA CANDIDARIA (Walk.)

*Erosia candidaria* Walker, *List Lep. Ins. Brit. Mus.*, xxxv. p. 1643 (1866) (New Guinea).

1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

## 567. EPIPLEMA AMOENA Swinh.

*Epiplema amoena* Swinhoe, *Tr. Ent. Soc. Lond.*, p. 596 (1904) (New Guinea).

1 ♂ 1 ♀ Base Camp, March 1913.

## 568. EPIPLEMA COERULEOTINCTA Warr.

*Epiplema coerulotincta* Warren, *Ann. Mag. N. H.* (6), i. p. 213 (1896) (Queensland; Key).

1 ♀ Canoe Camp, Dec. 1912; 1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 569. EPIPLEMA ILLITURATA Warr.

*Epiplema angulata* ab. *illituratora* Warren, *Nov. Zool.*, iii. p. 275 (1896) (Fergusson Isl.).

1 ♀ Base Camp, Nov.—Dec. 1912.

## 570. EPIPLEMA CONFLICTARIA (Walk.)

*Erosia conflictaria* Walker, *List Lep. Ins. B.M.*, xxiii. p. 851 (1861) (Ceram).

This is a most variable insect and has received many names; among the 7 specimens of Dr. Wollaston are 3 of the ab. *perpolita* Warr. with buff ground colour, 3 of the

ab. *lacteata* Warr. with milk-white ground colour, and 1 of the ab. *ilacina* Moore with lavender grey ground colour.

2 ♂♂ 1 ♀ Base Camp, Nov. 1912—Jan. 1913; 1 ♀ Canoe Camp, Dec. 1912; 1 ♂ 2 ♀♀ Uta kwa River, 2500–3000 ft., Jan.—Feb. 1913.

571. *EPIPLEMA NIVOSARIA* (Walk.)

*Erosia nivosaria* Walker, *List Lep. Ins. Brit. Mus.*, xxxv. p. 1644 (1866) (Mysol).

1 ♂ 1 ♀ Base Camp, March 1913; 1 ♂ Mimika River, July 1910.

572. *EPIPLEMA FUCINA* Swinh.

*Epiplema fucina* Swinhoe, *Trans. Ent. Soc. Lond.*, p. 596 (1902) (Pulo Laut).

1 ♂ 1 ♀ Base Camp, Nov. 1912—March 1913.

573. *EPIPLEMA WOLLASTONI* sp. nov.

♂♀. *Above* pale rufous wood brown irrorated with darker brown, body and forewing paler. *Forewing* with an indistinct brown spot in cell, a curved dark brown band beyond middle from costa to vein 4 and a dark brown spot above inner margin. *Hindwing* darker and more irrorated, some postmedian dark brown dots and some similar ones at the tails. One specimen has a buff ground colour, and a second is dark brown, and several are almost black.

Expanse 28–32 mm. Length of forewing 12·5–14·5 mm.

2 ♂♂ 1 ♀ Base Camp, Nov. 1912—Jan. 1913; 6 ♂♂ 3 ♀♀ Canoe Camp, Dec. 1912; 2 ♂♂ 3 ♀♀ Uta kwa River, 2500–3000 ft., Jan.—Feb. 1913.

574. *EPIPLEMA WARRENI* sp. nov.

♂. Body greyish cinnamon. *Forewing* pale yellowish cinnamon slightly irrorated with rufous, an antemedian, median, and a subterminal band between veins 2 and 8 brown. *Hindwing* yellowish cinnamon irrorated with rufous, a subbasal and median band and marginal line brown; the median being interrupted by a central brown longitudinal bar.

Expanse 20 mm. Length of forewing 8·5 mm.

1 ♂ Base Camp, Jan. 1913.

575. *EPIPLEMA CURVILINEA* Warr.

*Epiplema curvilinea* Warren, *Nov. Zool.*, vol. iii. p. 348 (1896) (Amboina).

1 ♂ Base Camp, Jan. 1913.

576. *EPIPLEMA BOARMIATA* sp. nov.

♂♀. Resembles a dirty-looking Boarmid. Antennae brown; head, thorax and abdomen buffy cream-colour. *Forewing* buffy cream strigillated with rufous brown, on disc

these strigillations are almost obsolete, an angled series of dark spots from apex to vein 2. *Hindwing* similar, but with dark marks above tornus and at and above vein 2 at margin.

Expanse 52 mm. Length of forewing 24.5 mm.

2 ♂♂ 1 ♀ Utaqua River, 3000 ft., Jan. 1913.

577. *EPIPLEMA URAPTERYGIA* sp. nov.

♀. Antennae whitish buff; head, thorax and abdomen yellowish grey. *Forewing* yellowish grey strigillated with chestnut brown; antemedian and median oblique transverse bands chocolate brown, a faint postdiscal line of brown smears. *Hindwing* yellowish grey strigillated with chestnut brown; a longitudinal band on disc, a postmedian strongly angulated band, a number of submarginal striae, outer margin and tail spot chocolate brown. Fringe of both wings white.

Expanse 28 mm. Length of forewing 12.5 mm.

1 ♀ Base Camp, Jan. 1913.

578. *GATHYNIA NIGRESCENS* Warr.

*Gathynia nigrescens* Warren, *Nor. Zool.*, vol. iii. p. 279 (1896) (Fergusson Isl.).

2 ♀♀ Base Camp, March 1913; 2 ♂♂ 1 ♀ Canoe Camp, Nov. 1912; 4 ♂♂ 2 ♀♀ Utaqua River, 2500–3000 ft., Feb. 1913.

579. *DIRADES DECORATA BRUNNEA* subsp. nov.

♂. Differs from *d. decorata* by its uniform wood brown, *not* grey ground colour; the white patch in costal half of hindwings runs out to a rounded point, the apex *not* being concavely truncate as in *d. decorata*.

Expanse 18 mm. Length of forewing 7.5 mm.

3 ♂♂ Utaqua River, 3000 ft., Jan. 1913.

580. *DECETIA DICHROMATA* Walk.

*Decetia dichromata* Walker, *List Lep. Ins. Brit. Mus.*, xxxv. p. 1558 (1866) (Chin Hills).

1 ♂ Base Camp, Jan. 1913.

LASIOCAMPIDAE

Only 1 species of this family is in the collection, and it is new.

581. *TARAGAMA PURPUREOCASTANEA* sp. nov.

♂. Antennae sooty grey; tibiae of forelegs orange ochraceous; head, thorax, and abdomen chestnut maroon. *Forewing* chestnut maroon, an antemedian and median

transverse black shadow-line. *Hindwing* chestnut maroon sharply excised from vein 6 to tornus. Both wings edged with a thin hair-line of white fringe.

Expanse 66 mm. Length of forewing 29 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

#### LIMACODIDAE

Of this family 5 species were sent, one being new.

##### 582. THOSEA UNICOLORA (Swinh.)

*Doratifera unicolora* Swinhoe, *Ann. Mag. N. H.* (7), ix, p. 418 (1902) (W. Australia).

1 ♀ Canoe Camp, Nov. 1912.

##### 583. PYGMAEOMORPHA MODESTA B.-Baker

*Pygmaeomorpha modesta* Bethune-Baker, *Nov. Zool.*, vol. xi, p. 387, pl. 5, f. 35 (1904) (Dinawa).

1 ♂ Base Camp, Nov. 1912.

##### 584. PYGMAEOMORPHA BRUNNEA B.-Baker

*Pygmaeomorpha brunnea* Bethune-Baker, *Nov. Zool.*, vol. xi, p. 397, pl. 5, f. 34 (1904) (Dinawa).

1 ♂ Canoe Camp, Nov. 1912; 1 ♂ Utakwa River, 3000 ft., Jan. 1913.

##### 585. MACROPLECTRA KENRICKI (B.-Baker)

*Lasiolimacos kenricki* Bethune-Baker, *Nov. Zool.*, vol. xi, p. 388, pl. 6, f. 33 (1904) (Dinawa).

1 ♂ Base Camp, Jan. 1913; 2 ♂♂ Utakwa River, 2500–3000 ft., Feb. 1913.

##### 586. TRICHOGYIA MINUTA sp. nov.

♀. Brownish pink cinnamon all over, with a slight irroration of reddish brown.

Expanse 18 mm. Length of forewing 7.5 mm.

1 ♀ Base Camp, Jan. 1913.

#### ZYGAENIDAE

Of this family the collection contains 3 species, one being new.

##### 587. HETERUSIA VENUS sp. nov.

♂. I have named this species *venus* on account of the very handsome ♀. Antennae black; head, tegulae and edges of patagia dark metallic blue; rest of thorax black; abdomen black slightly glossed with metallic grey-blue. *Forewing* gallstone orange,

apical  $\frac{1}{3}$  obliquely black. *Hindwing*, base and costal area sooty grey, basal half of wing below vein 8 gallstone yellow, outer half black.

♀. Antennae black; head and frons metallic green, vertex metallic blue, rest of head black; thorax orange, tegulae and tips and base of patagia metallic blue; abdomen dorsally basal and 2nd segment black, segments 3 and 5 black-brown with broad median yellow line, segments 6 and 7 yellow, sides of abdomen black glossed with metallic steel green. *Forewing*, basal  $\frac{2}{3}$  obliquely fiery orange, a broad oblique velvety black submedian band 8 millimeters wide becoming less and less dense below vein 1; outer  $\frac{1}{3}$  velvety black. *Hindwing*, basal half and costal area above vein 7 velvety black, outer half to just above vein 7 fiery orange.

Expanse, ♂ 54, ♀ 60 mm. Length of forewing, ♂ 25, ♀ 28 mm.

1 ♂ 1 ♀ Utakwa River, 2500–3000 ft., Jan.—Feb. 1913.

#### 588. *CAPRIMA MUTILLATA HENICA* Jord.

*Caprima mutillata henica* Jordan, *Nov. Zool.*, vol. xix. p. 119, No. 9 (1912) (Upper Setekwa River).

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

#### 589. *CLELEA VARIATA SEPARATA* Jord.

*Clelea variata separata* Jordan, in Seitz, *Grossschm.* x. p. 46 (1908) (Milne Bay; Key).

In the single specimen obtained both the fore- and hindwings have two elongate spots below the cell, the second spot being much more clearly marked than in the examples of *separata* which we have from Milne Bay, Mount Goliath, in Dutch New Guinea, and from the Key Islands.

1 ♂ Utakwa River, 2000–3000 ft., Feb. 1913.

### CALLIDULIDAE

Dr. Wollaston sent 7 species of this family, of which 2 are new.

#### 590. *CALLIDULA PETAVIA* (Cram.)

*Papilio petavius* Cramer, *Pap. Erot.*, vol. iv. p. 145, t. 365, ff. c. d. (1782) (Amboina).

1 ♀ Base Camp, Nov. 1912; 1 ♀ Canoe Camp, Dec. 1912.

#### 591. *CLEIS EVANDER* (Cram.)

*Papilio evander* Cramer, *Pap. Erot.*, vol. iv. p. 83, t. 331 ff. F, G (1782) (Amboina).

2 ♂♂ 2 ♀♀ Base Camp, Nov. 1912—March 1913; 1 ♀ Canoe Camp, Nov. 1912; 3 ♂♂ 4 ♀♀ Utakwa River, 2500–3000 ft., Feb. 1913.



592. *CLEIS AFFINIS* sp. nov.

♂ ♀. Closely allied to *evander* Cram. but orange band of forewing much narrower and more sharply angled and the hindwings are entirely brown.

1 ♂ Base Camp, Nov. 1912; 1 ♀ Utakwa River, sea level, Nov. 1912.

593. *CLEIS LATA* (Pagenst.)

*Damias lata* Pagenstecher, *Jahrb. Nassau Ver. Nat.*, v. 40. p. 223, t. 1, ff. 3, 13 (1887) (Batjan).

2 ♂♂ 5 ♀♀ Base Camp, Nov. 1912—March 1913.

594. *CLEIS HYPOLEUCA* Butl.

*Cleis hypoleuca* Butler, *Ann. Mag. Nat. Hist.* (5) xix. p. 222 (1887) (Solomon Islands).

2 ♂♂ 3 ♀♀ Base Camp, Nov. 1912—Jan. 1913; 1 ♀ Canoe Camp, Dec. 1912.

595. *COMELLA LAETIFICA* (Feld.)

*Tyndaris laetifica* Felder (R. & C.), *Wien. Ent. Monatsehr.*, vol. iv. p. 250 (1860) (Aru).

1 ♂ 3 ♀♀ Base Camp, Nov. 1912—March 1913; 1 ♂ 2 ♀♀ Canoe Camp, Nov. 1912; 2 ♀♀ Utakwa River, sea level, 3000 ft., Nov. 1912—Feb. 1913.

596. *COMELLA OBSCURIOR* sp. nov.

♂. Differs from *laetifica* by the whole margin of forewing from outer  $\frac{1}{3}$  of costa to inner half of inner margin being very broadly cinnamon maroon and the whole hindwing except scent-organ area also cinnamon maroon.

♀. Differs in the dark brown outer areas of both wings being very much wider.

1 ♂ 2 ♀♀ Base Camp, Nov. 1912—March 1913; 1 ♂ 1 ♀ Utakwa River, sea level to 3000 ft., Nov. 1912—Feb. 1913.

## DREPANIDAE

Of this family Dr. Wollaston obtained 5 species, of which 2 are new.

597. *DAMNA SCINTILLATA* (Walk.)

*Ausaris scintillata* Walker, *List Lep. Ins. B. M.*, xxvi. p. 1632 (1862) (Ceram).

1 ♂ 1 ♀ Base Camp, Nov. 1912—Jan. 1913.

598. *FELDERIA SUBPURA* sp. nov.

♂. Close to *pura* Warr. Antennae white, pectinations pinkish buff; head, thorax and abdomen whitish cream-colour. Wings pure white, costal area of forewings pale cream.

Expanse 28 mm. Length of forewing 13 mm.

1 ♂ Base Camp, Nov.—Dec. 1912.

599. *CAMPYLOPTERYX* (*CANUCHA*) *SUBLIGNATA* Warr.

*Campylopteryx sublignata* Warren, *Nov. Zool.*, ix. p. 340 (1902) (Watoebela).

1 ♂ 2 ♀♀ Canoe Camp, Dec. 1912.

600. *ORETA JASPIDEA* (Warr.)

*Cobanilla jaspidea* Warren, *Nov. Zool.*, iii. p. 335 (1896) (Queensland).

1 ♂ Base Camp, Jan. 1913.

601. *ORETA TROGOPTERA* sp. nov.

♀. Antennae brown; head brick red; tegulae dark brick red, rest of thorax black-brown; abdomen buffish cinnamon, dorsum of 1st and a dorsal spot on 2nd segments black-brown. *Forewing*, basal  $\frac{1}{7}$  black-brown variegated with buffish cinnamon, costal area from base for  $\frac{4}{5}$  its length buffish cinnamon, an oblique transverse line just beyond middle of wing brown-black with two dark crimson streaks across its upper end; outer  $\frac{3}{7}$  black-brown, apical area and short streaks of varying length running in from fringe along veins 4, 5, 6 and 7 buff; small stigma white. *Hindwing*, costal  $\frac{1}{4}$  buffy cinnamon, rest of wing black-brown, an antemedian brown-black line runs in from abdominal margin to pale costal  $\frac{1}{4}$ ; fringe dark crimson.

Expanse 34 mm. Length of forewing 15 mm.

1 ♀ Base Camp, Jan. 1913.

## THYRIDIDAE

The collection contains 21 species, of which 4 species and 1 subspecies are new to science.

602. *PLAGIOSELLA REVERSA* (Warr.)

*Striglina reversa* Warren, *Nov. Zool.*, vi. p. 318 (1899) (New Guinea).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

603. *PLAGIOSELLA FLOCCOSA* (Warr.)

*Striglina floccosa* Warren, l.c., xii. p. 7 (1905) (New Guinea).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

604. *PLAGIOSELLA CINNAMOMEA* sp. nov.

♂. Near *reversa* Warr. Uniform orange cinnamon. *Forewing* irrorated with brown-grey strigillations rather far apart, an oblique brown-grey line crosses the wing from apex to middle of inner margin. *Hindwing* also strigillated in same way; a convex

transverse antemedian line crosses the wing, fringes rufous cinnamon. Last 3 segments of abdomen brick red.

Expanse 36 mm. Length of forewing 16 mm.

1 ♂ Canoe Camp, Dec. 1912.

605. *PLAGIOSELLA BIVITTATA FULIGINOSA* subsp. nov.

♀. Uniform sooty brown-grey irrorated with black, a round black spot in basal  $\frac{1}{4}$  of hindwing.

Expanse 32 mm. Length of forewing 14 mm.

1 ♀ Base Camp, Nov. 1912.

606. *STRIGLINA VARIEGATA* Warr.

*Striglina variegata* Warren, *Nov. Zool.*, vi. p. 318 (1899) (New Guinea).

1 ♀ Base Camp, Nov. 1912 ; 1 ♂ Canoe Camp, Dec. 1912 ; 1 ♂ Uakwa River, sea level, Nov. 1912.

607. *STRIGLINA RUFOCASTANEA* sp. nov.

♂. Uniform bright rufous chestnut with brown strigillations, a curved purple line crosses forewing from costa  $\frac{1}{4}$  from apex to inner margin  $\frac{3}{5}$  from base, a similar oblique line starts at costa  $\frac{1}{3}$  from apex, crosses the former line at vein 8, and reaches termen at vein 2 ; on the hindwing is a transverse antemedian purple line  $\frac{1}{3}$  from base and an oblique similar line starting from middle of costa and not quite reaching termen at vein 3.

Expanse 30 mm. Length of forewing 13 mm.

1 ♂ Base Camp, Jan. 1913.

608. *STRIGLINA STRAMINEA* Warr.

*Striglina straminea* Warren, l.c., x. p. 257 (1903) (Amboina).

3 ♂♂ 1 ♀ Base Camp, Nov. 1912—March 1913.

609. *RHODONEURA THEORINA* (Meyr.)

*Siculodes theorina* Meyrick, *Trans. Ent. Soc. Lond.*, p. 200 (1887) (Queensland).

1 ♂ Base Camp, Nov. 1912.

610. *RHODONEURA ALBIFERALIS* (Walk.)

*Pyralis albiferalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1524 (1865) (Batchian).

1 ♂ 1 ♀ Base Camp, March 1913 ; 1 ♂ Canoe Camp, Dec. 1912 ; 1 ♂ 2 ♀♀ Uakwa River, sea level, Nov. 1912.

## 611. RHODONEURA FALLAX (Warr.)

*Pharambara fallax* Warren, *Ann. Mag. N. H.* (6) xviii. p. 229 (1896) (New Guinea).

1 ♀ Canoe Camp, Dec. 1912.

## 612. RHODONEURA EPIPLEMOIDES sp. nov.

♂. Resembles in shape and markings an *Epiplema* in a striking degree. Antennae brown; head, thorax and abdomen pale cinnamon. *Forewing* pale cinnamon somewhat variegated with darker lines, dots and bands: 3 short band-like dark cinnamon patches in costal area in basal  $\frac{3}{4}$  of wing, an oblique dark line from edge of most distal one to termen at vein 2 and a chestnut oblique band beyond it; a chestnut spot between veins 1 and 2 and a large median chestnut patch between vein 4 and inner margin, inside which is a cinnamon spot below vein 1. *Hindwing* chestnut cinnamon irrorated with paler cinnamon, 2 cream discal spots, the wing deeply excised between veins 4 and 6.

♀ similar, but cinnamon ground colour more yellowish and basal  $\frac{1}{4}$  of hindwing paler.

Expanse, ♂ 26 mm., ♀ 28 mm. Length of forewing, ♂ 11.5 mm., ♀ 12.5 mm.

1 ♂ Base Camp, Nov. 1912; 1 ♀ Canoe Camp, Dec. 1912.

## 613. RHODONEURA INSIGNIFICA sp. nov.

♂. Head and antennae brown-grey; tegulae, basal half brown-grey, outer half buffy yellow; thorax and abdomen brown-grey. *Forewing* brown-grey irrorated with darker strigae, costa chequered with buffy yellow. *Hindwing* brown-grey irrorated with darker strigae, a hair-like marginal line dull crimson.

Expanse 20 mm. Length of forewing 8.5 mm.

1 ♂ Base Camp, Nov. 1912.

## 614. RHODONEURA POLYGRAPHALIS (Walk.)

*Pyralis* ? *polygraphalis* Walker, *List Lep. Ins. B. M.*, xxxiv. p. 1240 (1865) (Mysol).

1 ♀ Canoe Camp, Dec. 1912.

## 615. RHODONEURA INTIMALIS (Moore)

*Pharambara intimalis* Moore, *Lep. Atkins.* p. 213 (1888) (Calcutta).

1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

## 616. RHODONEURA MYRTAEA (Drury)

*Phalaena Noctua myrtaea* Drury, *Exot. Ins.* ii. p. 1, pl. 2, fig. 3 (1773) (Madras).

1 ♂ 1 ♀ Utakwa River, 2500–3000 ft., Jan.—Feb. 1913.

## 617. RHODONEURA ACUTALIS (Walk.)

*Pyralis acutalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1523 (1865) (Mysol).

2 ♀♀ Base Camp, Nov.—Dec. 1912; 1 ♀ Canoe Camp, Dec. 1912.

## 618. RHODONEURA PUDICULA Guen.

*Rhodoneura pudicula* Guenée, *Ins. Lép. Atlas*, p. 4, pl. 58, fig. 8 (1858) (Java).

3 ♀♀ Base Camp, Jan. 1913.

## 619. BETOUSA SUBROSEALIS (Leech)

*Microsca subroscalis* Leech, *Entom.*, xxii. p. 66, pl. 6, fig. 14 (1889) (China).

1 ♀ Base Camp, Jan. 1913.

## 620. SYMPHLEPS PALLIDA Warr.

*Symphleps ochracea* ab. *pallida* Warren, *Nor. Zool.*, vi. p. 318 (1899) (Buru).

1 ♂ Canoe Camp, Nov. 1912.

## 621. ADDAEA POLYGRAPHALIS (Walk.)

*Pyralis?* *polygraphalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1245 (1865) (Swan River).

1 ♀ Base Camp, Jan. 1913 ; 1 ♀ Canoe Camp, Dec. 1912 ; 1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 622. ADDAEA TRIMERONALIS HELIOPSAMMA (Meyr.)

*Mesopcmpta heliopsamma* Meyrick, *Trans. Ent. Soc. Lond.*, p. 217 (1886) (New Guinea).

2 ♀♀ Base Camp, March 1913.

## HYBLAEINAE

2 species of this family are in the collection.

## 623. HYBLAEA VASA Swinh.

*Hyblaea vasa* Swinhoe, *Ann. Mag. N. H.* (7), xi. p. 506 (1903) (Fergusson).

1 ♂ Base Camp, March 1913.

## 624. HYBLAEA CONSTELLATA Guen.

*Hyblaea constellata* Guenée, *Ins. Lep.*, vi. p. 391 (1852) (Silhet).

1 ♂ Canoe Camp, Nov. 1912.

## PYRALIDAE

There are in the collection 196 species, and of these 74 species and 5 subspecies are new.



## GALLERIANAE

1 species only is represented in the collection.

625. *TIRATHABA RUFIVENA* (Walk.)

*Pallropa ? rufivena* Walker, *List Lep. Ins. B. M.*, xxxv, p. 1956 (1866) (Tasmania).

1 ♀ Canoe Camp, Dec. 1912.

## CRAMBINAE

There are 4 species of this subfamily represented, all new to science.

626. *EUDORINA QUADRIPUNCTA* sp. nov.

♂. Head, antennae and thorax cinnamon rufous; abdomen cinnamon buff. *Forewing*, basal  $\frac{2}{3}$  cinnamon orange glossed strongly with gold and suffused with chestnut;  $\frac{1}{5}$  from the base is a transverse white bar reaching from subcostal to vein 2, a median white spot; outer  $\frac{1}{3}$  rufous chestnut. *Hindwing*, basal  $\frac{2}{3}$  semivitreous grey-buff, outer  $\frac{3}{5}$  wood grey, the whole glossed with a golden sheen.

Expanse 21 mm. Length of forewing 9.5 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

627. *EUDORINA OBLIQUA* sp. nov.

♂. Head, antennae and thorax cinnamon rufous; abdomen cinnamon. *Forewing*, costal area and basal  $\frac{1}{3}$  obliquely inwards bright rufous chocolate, beyond this an oblique white wedge-shaped patch starting with the broad end on inner margin and running to a point at costa, outer half of wing cinnamon chocolate with two transverse rufous chocolate lines; whole wing with bronzy golden gloss. *Hindwing*, basal  $\frac{2}{3}$  grey buffish cinnamon, outer  $\frac{2}{5}$  cinnamon, whole wing with a golden satiny gloss.

Expanse 22 mm. Length of forewing 10 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

628. *EUDORINA SUBVARIEGATA* sp. nov.

♂. Head, thorax and antennae chestnut; abdomen cinnamon. *Forewing* golden rufous chestnut, variegated in costal area and below it with rufous buff somewhat ill-defined markings, similar marking still more obscure near base of wing. *Hindwing* brownish buffish cinnamon with satiny sheen.

Expanse 22 mm. Length of forewing 10 mm.

1 ♂ Carstensz Peak, 5000–10,000 ft., Feb.–March 1913. Type ♂ Angabunga River, Brit. New Guinea, 6000 ft. upwards, Nov. 1904–Feb. 1905 (A. S. Meek). Dr. Wollaston's only specimen is badly rubbed.

## 629. EUDORINA PERSIMILIS sp. nov.

♂. Differs from *subvariegata* by its smaller size and darker chestnut forewing with the markings below costal area more sharply defined and by the oblique broad lavender band in outer  $\frac{3}{5}$  of wing.

Expanse 18 mm. Length of forewing 8 mm.

2 ♂♂ Utaqua River, 3000 ft., Jan. 1913.

## SCHOENOBINAE

- Only 1 species of this subfamily is in the collection.

## 630. SCIRPOPHAGA AURIFLUA Zell.

*Scirpophaga auriflua* Zeller, *Mon. Chil. and Cramb.*, p. 2 (1863) (Calcutta).

1 ♀ Base Camp, Jan. 1913; 1 ♀ Canoe Camp, Dec. 1912.

## PHYCITINAE

Here also Dr. Wollaston only got 1 species.

## 631. OLIGOCHROA SIDERELLA Rag.

*Oligochroa siderella* Ragonot, in Rom., *Mém. Léop.*, vii. p. 379, pl. 18, fig. 10 (1893) (Natal).

1 ♀ Utaqua River, 3000 ft., Jan. 1913.

## EPIPASCHIANAE

The collection contains 10 species, of which 9 are new.

## 632. MACALLA FASCIOLATA sp. nov.

♂. Antennae metallic yellowish bronze green; palpi, head and thorax metallic golden apple green; abdomen yellowish wood brown. *Forewing* golden metallic apple green with 6 or 7 irregular transverse chestnut lines and bands and a marginal row of similar dots. *Hindwing* wood grey with a darker marginal line.

Expanse 28 mm. Length of forewing 12.5 mm.

1 ♂ Utaqua River, 3000 ft., Jan. 1913.

## 633. MACALLA WOLLASTONI sp. nov.

♂. Antennae, basal  $\frac{1}{3}$  maroon crimson, rest pinkish silver grey, basal appendages maroon brick red indistinctly marbled with a paler tint; head and palpi maroon crimson; thorax maroon crimson mixed, blotched and dotted with white; abdomen brown, blotched dorsally with dark crimson, tuft mixed white and maroon. *Forewing* maroon crimson marked here and there with patches of mixed white and black scales, a subbasal, 2 postmedian and a submarginal transverse band of white spots, a white

dot between submarginal and postmedian bands, fringe chequered with white. *Hindwing* greyish wood cinnamon, almost whitish, fringe, costal and abdominal areas tinged with pink.

Expanse 36 mm. Length of forewing 16 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

634. *MACALLA APICALIS* Kenr.

*Macalla apicalis* Kenrick, *P.Z.S.*, p. 71, pl. 3, fig. 18 (1907) (New Guinea).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

635. *STERICTA KLOSSI* sp. nov.

♂. Head and thorax apple green; antennae and abdomen rusty wood brown. *Forewing*, basal  $\frac{2}{3}$  apple green, apical  $\frac{1}{3}$  and 2 patches running into disc of wing from costa chocolate maroon. *Hindwing*, mauve brown-grey, fringe pale crimson.

Expanse 34 mm. Length of forewing 15 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

636. *STERICTA OLIVACEOALBA* sp. nov.

♂. Head, thorax and abdomen pale buffish wood grey, the head and thorax variegated faintly with pale olive; antennae pale brown. *Forewing* dirty white, a large ante-median yellowish olive wedge-like bar becoming obsolete on and beyond vein 1 and with darker central spot, some patches in costal area and a broad submarginal somewhat interrupted band pale yellowish olive, a marginal row of darker olive dots. *Hindwing* pale whitish grey with darker marginal dots.

Expanse 29 mm. Length of forewing 12.5 mm.

2 ♂♂ Utakwa River, 3000 ft., Jan. 1913.

637. *STERICTA INDISTINCTA* sp. nov.

♀. Head and thorax pale olive; antennae pale brown; abdomen greyish buffy wood brown. *Forewing* greenish olive variegated with indistinct whitish band-like blotches in central  $\frac{1}{3}$ . *Hindwing* pale whitish grey.

Expanse 26 mm. Length of forewing 11 mm.

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

638. *STERICTA SINAPIS* sp. nov.

♀. Antennae black-brown; head and thorax olive mustard yellow; abdomen mustard yellow. *Forewing* olive mustard yellow, some irregular brownish markings in basal  $\frac{1}{3}$  of wing, an oblique blackish median irregular band and a similar stigma beyond it;

2 cloud-like greyish bands in submarginal  $\frac{1}{3}$  of wing and a marginal blackish crenulated line. *Hindwing*, basal  $\frac{1}{2}$  mustard yellow, outer half sooty grey.

Expanse 20 mm. Length of forewing 8.5 mm.

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

639. *ORTHAGA KLOSSI* sp. nov.

♂. Head and antennae maroon; thorax cinnamon suffused with maroon; abdomen brownish cinnamon. *Forewing*, base pale cinnamon grey, subbasal  $\frac{1}{3}$  of wing olive with costal area and large spot below it maroon, a median somewhat irregular oblique white band, rest of wing pale maroon, variegated and suffused with white, pink, olive and lavender. *Hindwing* buff; apical  $\frac{1}{3}$ , marginal line and fringe suffused with pale maroon.

Expanse 32 mm. Length of forewing 14 mm.

1 ♂ Canoe Camp, Dec. 1912.

640. *POLYPHOTA NIGROALBA* sp. nov.

♂. Antennae brown; head and thorax sooty brown-black variegated with dirty white; abdomen wood brown. *Forewing* dirty white, basal  $\frac{1}{3}$  strongly variegated with sooty brown-black and separated from the rest of the wing by an oblique transverse line of same colour; median  $\frac{1}{3}$  has an irregular wedge-shaped sooty brown-black patch running from costa  $\frac{1}{3}$  across wing, and a ring of same colour beyond it; outer  $\frac{1}{3}$  of wing separated from median  $\frac{1}{3}$  by a transverse crenulated sooty black-brown line and beyond it is almost entirely covered with same colour. *Hindwing* pale grey, here and there suffused with white, outer  $\frac{1}{3}$  more sooty grey.

Expanse 30 mm. Length of forewing 13 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

641. *POLYPHOTA FULIGINOSA* sp. nov.

♀. Head and thorax sooty black-brown; abdomen sooty grey-brown; antennae brown. *Forewing* sooty black-brown obscurely frosted with white scales. *Hindwing* greyish wood brown with obscure pink tinge, fringe pink, a blackish wedge-shaped line runs in from margin along vein 2 half across wing.

Expanse about 30 mm.

1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912.

CHRYSAUGINAE

Only 1 species of this subfamily is in the collection.

642. *CURICTA OPPOSITALIS* Walk.

*Curicta oppositalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv, p. 1130 (1865) (Aru).

1 ♂ 1 ♀ Base Camp, Nov. 1912; 1 ♀ Canoe Camp, Nov. 1912; 3 ♂♂ Utakwa River, 2500–3000 ft., Feb. 1913.

## ENDOTRICHINAE

2 species of this group were obtained, of which one is a new subspecies.

643. *ENDOTRICHIA PERSICOPA* Meyr.

*Endotricha persicopa* Meyrick, *Trans. Ent. Soc. Lond.*, 1889, p. 506 (Borneo).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

644. *COTACHENA HISTRICALIS ORIENTALIS* subsp. nov.

♂. Differs from *h. historicalis* in its much larger size, darker colour, and in the markings being much stronger and more sharply defined.

Expanse 30 mm. Length of forewing 13 mm.

1 ♂ Base Camp, Jan. 1913.

## PYRALINAE

Of this subfamily the collection contains 5 species, of which 2 are new to science.

645. *VITESSA ZEMIRA TEMERATA* Swinh.

*Vitessa temerata* Swinhoe, *Ann. Mag. Nat. Hist.* (7), xviii, p. 413 (1906) (Granville, New Guinea).

1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

646. *HYPSOPYGA LATICILIALIS* sp. nov.

♀. Antennae dark brown; palpi and head golden yellow; thorax and abdomen dark mauve purple, abdominal tuft golden yellow. *Forewing* bright mauve purple, a broad subbasal golden yellow transverse band, a postmedian golden yellow patch on costa and below it, a narrow broken irregular margin and the very broad fringe golden yellow. *Hindwing* bright mauve purple, a buff costal patch, the very broad fringe and the margin at and around tornus golden yellow.

Expanse 20 mm. Length of forewing 8.5 mm.

1 ♀ Base Camp, Nov. 1912.

647. *HERCULEA TENUIS* Butl.

*Herculea tenuis* Butler, *P.Z.S.*, 1888, p. 681 (Brazil).

1 ♂ 1 ♀ Utakwa River, 3000 ft., Jan. 1913; 1 ♂ Snow Mts., 4000–6000 ft., Jan.–Feb. 1913.



648. *CURENA EXTERNALIS* Walk.

*Curena externalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1253 (1865) (Australia).

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

649. *CURENA INDISTINCTALIS* sp. nov.

♀. Antennae, head, thorax and abdomen greyish cinnamon brown. *Forewing*, basal  $\frac{2}{3}$  cinnamon grey freckled sparsely with darker scales, an indistinct antemedian line and a stigma brown; outer  $\frac{1}{3}$  cinnamon chestnut separated from basal  $\frac{2}{3}$  by a dark brown transverse hair-line. *Hindwing* orange cinnamon with 2 indistinct discal lines, a subcostal spot and the margin brownish cinnamon.

Expanse 24 mm. Length of forewing 10.5 mm.

1 ♀ Canoe Camp, Dec. 1912.

## HYDROCAMPINAE

Dr. Wollaston collected 48 species of this group, of which 27 species and 3 subspecies are new.

650. *ORPHNOPHANES THOASALIS* (Walk.)

*Botys thoasalis* Walker, *List Lep. Ins. Brit. Mus.*, xviii. p. 692 (1859) (Borneo).

2 ♂♂ Base Camp, March 1913.

651. *CATACLYSTA BLANDIALIS* Walk.

*Cataclysta blandialis* Walker, *List Lep. Ins. Brit. Mus.*, xvii. p. 448 (1859) (Japan).

1 ? Base Camp, Dec. 1912; 1 ♀ Canoe Camp, Dec. 1912; 2 ♂♂ Utakwa River, 2500–3000 ft., Jan.—Feb. 1913.

The specimens collected by Dr. Wollaston represent the form *xanthobathra* Meyrick, but it can only stand as an aberration, for it occurs together with the type in most localities.

652. *AMBIA PUNCTIMARGINATA* sp. nov.

♂. Antennae white above, fulvous below; head, thorax and abdomen white. *Forewing* white, 3 spots on costa and 3 indistinct discal patches dirty brown, a basal dot on costa and a median spot below subcostal vein sooty black, a marginal band of sooty black spots. *Hindwing* white with 2 or 3 irregular and indistinct patches of brown scales, a marginal row of sooty black spots.

Expanse 14 mm. Length of forewing 6 mm.

1 ♂ Base Camp, Jan. 1913.

653. *AMBIA OBLIQUISTRIGA* sp. nov.

♂. Antennae rufous; head, thorax and abdomen greyish white. *Forewing* white, clouded with more or less obsolete brownish smears; 2 dots on basal  $\frac{1}{3}$  of costa, 1 in cell, a spot at apex of cell, and a streak on outer  $\frac{1}{3}$  of vein 1 dark brown; an oblique dark brown transverse line crosses wing in postdiscal area. *Hindwing* white, clouded with brownish scales; 3 dots in basal  $\frac{1}{3}$  of wing, a line running in from costa, and a marginal row of dots dark brown.

Expanse 12 mm. Length of forewing 5 mm.

1 ♂ Base Camp, Jan. 1913.

654. *AMBIA MARGINALIS* sp. nov.

♂. Antennae yellowish; head, thorax and abdomen white. *Forewing* white, a dot in cell and submarginal band buffish grey. *Hindwing* white; a spot in abdominal area, 2 discal spots, and a submarginal band buffish grey.

Expanse 13 mm. Length of forewing 5.5 mm.

12 ♂♂ 3 ♀♀ Base Camp, Nov. 1912—Jan. 1913.

655. *AMBIA KLOSSI* sp. nov.

♂. Antennae buffish orange; head and thorax orange variegated with buff; abdomen orange banded with buff. *Forewing* orange with indistinct buff markings in basal  $\frac{1}{3}$ ; 2 median somewhat broken white transverse bands and a sooty median patch on and below costa; two postmedian white bands with some dark brown dots along them, fringe chequered orange and sooty brown. *Hindwing* orange, base and 3 waved transverse bands white; some dark brown marks on two outer lines and fringe.

Expanse 16 mm. Length of forewing 7 mm.

1 ♂ Canoe Camp, Dec. 1912; 1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

656. *ERISTENA TRIGONALIS* Hampsn.

*Eristena trigonalis* Hampson, *Ann. Mag. N.H.* (7) xviii. p. 390 (1906) (Kapaur).

2 ♂♂ 7 ♀♀ Utakwa River, 2500–3000 ft., Jan.—Feb. 1913.

657. *NYMPHULA FOEDALIS* (Guen.)

*Isopteryx foedalis* Guenée, *Delt. et Pyral.*, p. 228, pl. 4, f. 7 (1854) (Central India).

7 ♂♂ 5 ♀♀ Base Camp, Jan. 1913.

658. *NYMPHULA SPILOMELALIS* (Walk.)

*Isopteryx spilomelalis* Walk., *List Lep. Ins. Brit. Mus.*, xvii. p. 403 (1859) (Ceylon).

This insect has been wrongly identified by Hampson and Swinhoe with *foedalis* Guen.; it is a perfectly good and distinct species.

1 ♂ 1 ♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913; 1 ♂ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

659. OLIGOSTIGMA CONSPURCATALE (Warr.)

*Ambia conspurcatalis* Warren, *Ann. Mag. Nat. Hist.* (6), xvii. p. 202 (1896) (Assam).

2 ♀♀ Utkwa River, 2500–3000 ft., Feb. 1913.

660. AULACODES CERVINALIS DISTINCTA subsp. nov.

♀. Differs from *c. cervinalis* in the submarginal white band of forewing being much wider and the white band along inner margin which joins it being also broader and reaching nearer to the base of the wing while the median white band is reduced to a dot below subcostal vein.

Expanse 27 mm. Length of forewing 11.5 mm.

2 ♀♀ 1 ♂ Utkwa River, 2500–3000 ft., Dec. 1912.

661. AULACODES DIOPSALIS MAJOR subsp. nov.

♀. Differs from *d. diopsalis* in its much larger size, in the golden band above inner margin of forewing extending to base of wing, and instead of its basal  $\frac{1}{3}$  being dark brown there is, below its centre, a dark brown streak.

Expanse 24–30 mm. Length of forewing 10–13 mm.

5 ♀♀ Base Camp, Nov. 1912—Jan. 1913; 3 ♀♀ Canoe Camp, Dec. 1912; 1 ♀ 1 ♂ Utkwa River, 3000 ft., Jan. 1913.

662. AULACODES PURPURALIS Kenr.

*Aulacodes purpuralis* Kenrick, *P.Z.S.*, p. 76, pl. 3, fig. 56 (1907) (New Guinea).

2 ♂♂ Base Camp, Jan. 1913.

663. AULACODES SIENNATA INTENSA subsp. nov.

♂. Differs from *s. siennata* by the black markings being more extended and of an intenser colour.

3 ♂♂ Base Camp, Jan. 1913; 1 ♂ Canoe Camp, Dec. 1912.

664. AULACODES GONIOPHORALIS Hampsn.

*Aulacodes goniophoralis* Hampson, *Ann. Mag. N.H.* (7), xviii. p. 468 (1906) (New Guinea).

1 ♀ Base Camp, Jan. 1913.

665. AULACODES BIPUNCTALIS Kenr.

*Aulacodes bipunctalis* Kenrick, *P.Z.S.*, p. 76, pl. 3, fig. 57 (1907) (New Guinea).

2 ♂♂ 3 ♀♀ Utkwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

## 666. AULACODES OVOMACULALIS sp. nov.

♀. Antennae white above, dark buff below; head white; tegulae cinnamon, thorax white; abdomen white. *Forewing* cinnamon rufous, a large silvery white patch occupies basal  $\frac{1}{3}$  of wing below subcostal nervure, a larger median silvery white patch extends from inner margin to lower side of cell, a postmedian oval discal silvery white patch, and a similar coloured subterminal line, a terminal line of black dots, fringe silver. *Hindwing*, basal  $\frac{1}{2}$  white, outer  $\frac{1}{2}$  deep buff; 2 median dark streaks between the two areas and a marginal row of 4 black and silver spots.—♂ similar.

Expanse 20 mm. Length of forewing 8.5 mm.

3 ♀♀ 1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

## 667. AULACODES WOLLASTONI sp. nov.

♀. Antennae, head, thorax and abdomen white. *Forewing*, basal  $\frac{3}{4}$  white, outer  $\frac{1}{4}$  golden buff; costal area, basal half brownish grey, running out into the wing obliquely at end to vein 3, where it joins a postmedian line bordering inside the buff outer area, thus inclosing a triangular portion of white, a silver grey subterminal band, an arcuate black streak on vein 1. *Hindwing*, basal  $\frac{2}{3}$  white, outer  $\frac{1}{3}$  dark buff with a dark grey streak on inside and a marginal row of black-and-white spots.

♂ similar, but brighter coloured.

Expanse 16 mm. Length of forewing 7 mm.

1 ♀ Base Camp, Nov. 1912; 2 ♀♀ Canoe Camp, Dec. 1912; 4 ♂♂ 3 ♀♀ Utakwa River, 3000 ft., Jan. 1913.

## 668. AULACODES PULCHRALIS sp. nov.

♂. Antennae buff; head white, collar buff; thorax dirty grey-buff, tegulae and basal half of patagia white, abdomen buff. *Forewing*, basal  $\frac{1}{3}$  below costa obliquely divided white and orange, basal  $\frac{1}{3}$  of costa sooty grey-black, outer  $\frac{2}{3}$  orange, beyond the basal  $\frac{1}{3}$  of wing a transverse white band edged with black inwardly starts from subcostal and at vein 2 suddenly widens out till at inner margin it occupies median  $\frac{2}{3}$  of margin; outer  $\frac{1}{2}$  of wing ovaly sooty grey-black with a central white longitudinal band and shaded outwardly with orange brown; a silver grey subterminal band and the termen broadly orange with a row of minute black dots at edge. *Hindwing*, basal  $\frac{1}{3}$  white, rest buff, a discal black streak and a submarginal row of black-and-white dots.

Expanse 22 mm. Length of forewing 9.5 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

## 669. AULACODES UNIPLAGIALIS sp. nov.

♂. Antennae buff; head and thorax mixed sooty grey and white; abdomen pale yellowish wood brown. *Forewing* sooty black, a large postmedian white patch from

costa to vein 4; a subterminal white crenulated line, termen orange buff with black dots. *Hindwing*, basal  $\frac{1}{2}$  white, base sooty black; outer half orange buff with discal black line, a subternal sooty patch and a grey subapical streak; middle  $\frac{1}{3}$  of fringe black, rest pale buff.

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

670. *AULACODES POSTBASALIS* sp. nov.

♀. Antennae brown, head and thorax sooty black; abdomen white, two basal segments above sooty black. *Forewing* below costa sooty black, costa pale buff, powdered with sooty scales; an oblique wedge-shaped white patch runs up into wing from inner margin, a postmedian oval white patch below costa to vein 3; a white subterminal band, termen buff. *Hindwing*, basal  $\frac{1}{3}$  sooty black, a broad median band white, outer half buff; a median discal sooty line and a marginal row of 7 black dots with inner dark line above them.

Expanse 20 mm. Length of forewing 8.5 mm.

1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912.

671. *COPTOBASIS MESOPSECTRALIS* Hampsn.

*Coptobasis mesopsectralis* Hampson, *Trans. Ent. Soc. Lond.* 1897, p. 203 (Amboina).

1 ♂ 1 ♀ Base Camp, Jan.—March 1913; 1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

672. *HYMENOPTYCHIS SORDIDA* Zell.

*Hymenoptychis sordida* Zeller, *Lep. Caffr.*, p. 65 (1852) (Caffraria).

1 ♂ 1 ♀ Base Camp, Jan. 1913.

673. *DRACAENURA PLEBEJIFASCIALIS* sp. nov.

♂. Antennae, head, thorax and abdomen wood yellowish buff. *Forewing* buff washed with brownish grey, costa, a subbasocostal spot and a postmedian transverse line mauve grey tinged with brown, a dark spot in cell. *Hindwing* buff washed on outer half with brown-grey, a median mauve grey transverse line. Fringe of all wings white. ♀ similar.

Expanse 24 mm. Length of forewing 10.5 mm.

3 ♂♂ 6 ♀♀ Base Camp, March 1913.

674. *DRACAENURA CHRYSOCHROA* Hampsn.

*Dracaenura chrysochroa* Hampson, *Ann. Mag. N.H.* (7), xix. p. 3 (1907) (Kapaur).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.



675. *DRACAENURA SEMIALBALIS* sp. nov.

♀. Allied to *albonigralis* Hmps. Antennae sooty brown with whitish marks; head sooty black, frons white; thorax sooty black; outer  $\frac{2}{3}$  of patagia white; abdomen sooty black. *Forewing*, basal half white, base sooty black; costa and outer  $\frac{1}{2}$  sooty black; a black dot in cell and white one beyond it; a white postmedian spot on and below costa and a subterminal white patch above vein 1; a terminal white hair-line, fringe sooty grey. *Hindwing*, basal  $\frac{3}{5}$  white, base and abdominal margin sooty black; outer  $\frac{2}{5}$  sooty black, a marginal white hair-line, fringe sooty grey.—♂ similar.

Expanse 22 mm. Length of forewing 9.5 mm.

1 ♂ Utaqua River, 2500–3000 ft., Dec. 1912 (Type ♀ Upper Setekwa River, 1000 to 3000 ft., Sept. 1910 (A. S. Meek), the single ♂ of Dr. Wollaston being too rubbed to describe).

676. *DRACAENURA PSEUDOPELOCHRA* sp. nov.

♂. Antennae pale buff; head and thorax yellowish cream; abdomen brown-buff. *Forewing* semihyaline buffish yellow, slightly paler on disc; a cellular stigma and a bent postmedian transverse band brownish. *Hindwing* semihyaline buffy yellow, margin and fringe brown.

Expanse 26 mm. Length of forewing 11 mm.

1 ♂ Utaqua River, 3000 ft., Jan. 1913.

677. *DRACAENURA GRISEOTINCTALIS* sp. nov.

♀. Antennae, head and thorax white; abdomen pale ash grey. *Forewing* ash grey with small stigma in cell; an oblique antemedian line, a curved postmedian line and a short median streak from vein 2 to inner margin brown-grey, a black apical dot. *Hindwing* whitish grey, darker towards outer margin.

Expanse 18 mm. Length of forewing 7.5 mm.

1 ♀ Utaqua River, 3000 ft., Jan. 1913.

678. *STREPSINOMA AULACODOIDALIS* sp. nov.

♀. Antennae, head, thorax and abdomen sooty brown. *Forewing* sooty cinnamon grey; a median band from base of wing to well beyond middle and an oblique band at right angles to it pale chestnut brown; a submarginal line black, margin bright brown. *Hindwing* sooty cinnamon grey, a postmedian band and outer and abdominal margins orange brown, 2 short black lines and 3 black-and-white dots in margin.

Expanse 17 mm. Length of forewing 7 mm.

2 ♀♀ Utaqua River, 3000 ft., Jan. 1913.

## 679. STREPSINOMA ALBIMACULALIS sp. nov.

♀. Antennae, head, thorax and abdomen sooty grey-black, legs white. *Forewing* sooty grey-black, a large postmedian wedge-shaped spot running into wing from costa at vein 3 white, a white subapical spot. *Hindwing* sooty grey-black.

Expanse 16 mm. Length of forewing 6 mm.

2 ♀♀ Utakwa River, 2500–3000 ft., Jan.—Feb. 1913.

## 680. STREPSINOMA ALBIPLAGIALIS sp. nov.

♂. Antennae pale brown; head whitish; thorax and abdomen mouse grey. *Forewing* mouse grey, a white triangular postmedian patch running into wing from costa. *Hindwing* mouse grey.

Expanse 20 mm. Length of forewing 9 mm.

1 ♂ Canoe Camp, Dec. 1912.

## 681. STREPSINOMA FULIGINOSA sp. nov.

♂. Antennae, head, thorax and abdomen sooty black. *Forewing* sooty black; an antemedian band, a median spot, and an irregular zigzag postmedian band paler, more grey. *Hindwing* sooty grey with indications of paler markings.—♀ similar.

Expanse 18 mm. Length of forewing 8 mm.

10 ♂♂ 8 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

## 682. STREPSINOMA GRISEALIS sp. nov.

♂ ♀. Uniform brownish mouse grey all over.

Expanse 14–20 mm. Length of forewing 6–8.5 mm.

21 ♂♂ 9 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912—Feb. 1913.

## 683. BRADINA FULIGINOSA sp. nov.

♀. Antennae, head, thorax and abdomen sooty grey, a white patch on 3rd and penultimate segments of latter. *Forewing* sooty grey with 3 somewhat waved darker transverse lines; fringe white, termen squarely truncated. *Hindwing* sooty grey with two unequal discal darker lines; fringe white.

Expanse 24 mm. Length of forewing 10.5 mm.

1 ♀ Base Camp, March 1913.

## 684. BRADINA GRISEALIS sp. nov.

♂. Antennae, head and thorax brown-grey; abdomen brown-grey, segments of apical  $\frac{1}{2}$  finely edged with white. *Forewing* brown-grey, 2 unequal discal transverse lines

and margin darker; fringe brown-grey. *Hindwing* brown-grey; a discal line and margin darker, fringe white.

Expanse 22 mm. Length of forewing 9.5 mm.

5 ♂♂ Snow Mountains, 4000–6000 ft., Jan.—Feb. 1913.

685. *BRADINA IMPRESSALIS* Led.

*Bradina impressalis* Lederer, *Wien. Ent. Mon.* 1863, p. 447, pl. 15, f. 16 (Amboina).

6 ♂♂ 9 ♀♀ Base Camp, March 1913; 1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912;  
1 ♂ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

686. *BRADINA AFFINIS* sp. nov.

♂. Near *impressalis* Led. Antennae, head, thorax and abdomen sooty brown. *Forewing*, basal  $\frac{2}{3}$  except costa and stigma semihyaline white; costa, stigma and outer  $\frac{1}{3}$  sooty brown, a semihyaline white subapical patch. *Hindwing*, basal  $\frac{3}{4}$  semihyaline white, rest sooty brown.

Expanse 21 mm. Length of forewing 9 mm.

1 ♂ Base Camp, Dec. 1912.

687. *BRADINA POSTBICOLORALIS* sp. nov.

♀. Antennae, head, thorax and abdomen wood brown. *Forewing* wood brown with 2 darker marks in cell. *Hindwing*, basal  $\frac{3}{4}$  semihyaline white, outer  $\frac{1}{4}$  wood brown.

Expanse 28 mm. Length of forewing 12.5 mm.

1 ♀ Base Camp, Dec. 1912.

688. *ALMONIA AEGINUSALIS* (Walk.)

*Desmia aeginusalis* Walker, *List Lep. Ins. Brit. Mus.*, xix, p. 929 (1859) (Sarawak, Borneo).

2 ♂♂ 7 ♀♀ Base Camp, March 1913; 1 ♀ Canoe Camp, Dec. 1912; 3 ♂♂ 29 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912—Feb. 1913.

689. *ALMONIA ATRATALIS* sp. nov.

♂. Entirely velvety black, antennae and legs very long, apices of forewings produced.

♀. Uniform sooty black-brown, apices of forewings not produced.

Expanse, ♂ 26, ♀ 18 mm. Length of forewing, ♂ 11, ♀ 7.5 mm.

1 ♂ 1 ♀ Utakwa River, 2500–3000 ft., Jan.—Feb. 1913.

690. *PILETOCERA VIOLALIS* Led.

*Piletocera violalis* Lederer, *Wien. Ent. Mon.*, 1863, p. 431, pl. 16 f. 15 and pl. 5, ff. 14–35 (Amboina).

3 ♂♂ 1 ♀ Utakwa River, 3000 ft., Jan. 1913.

691. *PILETOCERA EPIPERCIALIS* Hmps.

*Piletocera epipercialis* Hampson, *Trans. Ent. Soc. Lond.*, 1897, p. 210 (Fergusson Isld.).

1 ♂ Base Camp, March 1913.

692. *PILETOCERA VESTIGIALIS* (Warr.)

*Diploptyla vestigialis* Warren, *Ann. Mag. Nat. Hist.* (6) xvii. p. 144 (1896) (Queensland).

2 ♂♂ Base Camp, Nov. 1912—Jan. 1913; 4 ♀♀ Canoe Camp, Dec. 1912; 4 ♂♂ 6 ♀♀ Utakwa River, 2500–3000 ft., Jan.—Feb. 1913.

693. *STENIA BRUGUIRALIS* Dup.

*Stenia bruguiralis* Duponchel, *Lep. Fran.*, p. 320, pl. 232, f. 3 (1831) (S. France).

1 ♂ Base Camp, Dec. 1912; 3 ♂♂ 12 ♀♀ Utakwa River, 3000 ft., Jan. 1913.

694. *STENIA TENEBROSALIS* sp. nov.

♂. Antennae, head, thorax and abdomen sooty wood-brown. *Forewing* sooty wood-brown indistinctly variegated with a paler more yellowish tint; 2 dark spots below costa, indistinct antemedian and median darker bands and a sinuate median dark band. *Hindwing* sooty wood-brown with two transverse dark bands.

Expanse 20 mm. Length of forewing 9 mm.

1 ♀ Canoe Camp, Dec. 1912; 2 ♂♂ 3 ♀♀ Utakwa River, 3000 ft., Jan. 1913.

695. *TALANGA TOLUMNIALIS* MAJOR subsp. nov.

♂. Larger and darker than *t. toluumnialis*, and the pattern more strongly developed.

Expanse 25 mm. Length of forewing 11 mm.

1 ♂ Base Camp, March 1913.

696. *CLUPEOSOMA STRIGATALIS* sp. nov.

♂. Palpi, head and antennae brownish buff; thorax, tegulae and patagia opalescent blue, rest brownish buff; abdomen brownish buff. *Forewing* buffish yellow, an opalescent blue streak on basal  $\frac{1}{5}$  of costa and median vein; a median brown patch below vein 1 and a similar submarginal one between veins 2 and 4; a blue streak on costa beyond middle of wing, and veins 7, 8, 9 are black below it; fringe sooty brown. *Hindwing* semihyaline yellowish grey.

Expanse 20 mm. Length of forewing 8.5 mm.

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

## PYRAUSTINAE

Of this subfamily the collection contains 123 species, of which 32 species and 1 subspecies are undescribed.

## 697. CATAPSEPHUS ACUTIANGULATALIS sp. nov.

♀. Antennae, head and thorax whitish; abdomen whitish ash grey. *Forewing*, basal  $\frac{1}{2}$  obliquely greyish white, a brown dot and almost obsolete reddish line in centre; outer half variegated with patches of various shades of brown and buff, an elbowed subterminal white line, between which and the marginal dark brown line is a space pale grey almost entirely clouded over with brown, fringe brownish with white lines; termen centrally sharply angled. *Hindwing* whitish grey, a small black central dot and a larger black-brown spot below it, outer half darker with indistinct postmedian and subterminal bands, black marginal line and brownish grey fringe.

Expanse 18 mm. Length of forewing 8 mm.

1 ♀ Base Camp, March 1913.

## 698. ENTEPHRIA JAGUARALIS (Guen.)

*Spilomela jaguaralis* Guenée, *Delt. et Pyral.*, p. 283 (1854) (hab. ?).

This is a very variable species both as to size and breadth of the black spots and bands and also in regard to the presence, absence, or extent of the yellow on the abdomen and tornus of hindwing.

5 ♂♂ 2 ♀♀ Base Camp, March 1913.

## 699. ENTEPHRIA IDALIS (Walk.)

*Zebronia idalis* Walker, *List Lep. Ins. Brit. Mus.*, xvii. p. 485 (1859) (Sarawak, Borneo).

1 ♂ Base Camp, March 1913.

## 700. ENTEPHRIA LACTIFERALIS (Walk.)

*Zebronia ? lactiferalis* Walker, *List Lep. Ins. Brit. Mus.*, xvii. p. 480 (1859) (Hindustan).

2 ♂♂ 5 ♀♀ Base Camp, March 1913.

## 701. ENTEPHRIA GLAUCIAS (Meyr.)

*Aripa glaucias* Meyrick, *Trans. Ent. Soc. Lond.*, 1894, p. 459 (Pulo Laut).

1 ♂ Base Camp, Nov. 1912; 1 ♂ Canoe Camp, Dec. 1912.

## 702. ENTEPHRIA CRIBRATA (Fabr.)

*Phalaena cribrata* Fabricius, *Ent. Syst.*, iii. 2, p. 215 (1794) (Ind. or.).

14 ♂♂ 4 ♀♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913; 1 ♂ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

## 703. TABIDIA INSANALIS Snell.

*Tabidia insanalis* Snellen, *Tijl. v. Ent.*, 1880, p. 220; and 1883, pl. 8, f. 6 (Celebes).

1 ♂ 2 ♀♀ Base Camp, Jan.—March 1913.



704. *HETEROCNEPHES SCAPULALIS* Led.

*Heterocnephes scapulalis* Lederer, *Wien. Ent. Mon.*, vii. 1863, p. 402. pl. 14, f. 5 (Amboina).

1 ♀ Base Camp, March 1913; 1 ♂ Canoe Camp, Dec. 1912.

705. *AGROTERA IGNEPICTOIDES* sp. nov.

♂. Antennae brown; head and thorax yellow, suffused and blotched with scarlet; abdomen, basal segment cinnamon dotted with scarlet, second and third segments scarlet spotted with yellow, segments 3, 4 and 5 bright cinnamon, rest greyish cinnamon. *Forewing*, basal  $\frac{1}{4}$  yellow closely spotted with scarlet, rest of wing pale cinnamon mauve washed with grey-brown at and near apex; on, beyond, and below apex of cell a large irregular scarlet patch surrounded on three sides by a smoky brown-black ill-defined blotch and with a yellow streak and dot; discocellular veinlets, a dot on centre of vein 1 and a sinuated postmedian line of dots from costa to vein 5 black. *Hindwing*, baso-costal  $\frac{1}{3}$  of wing cream-colour, rest pale cinnamon mauve; a postmedian row of small dots from costa to vein 4 black; abdominal area buff, beyond it an irregular longitudinal scarlet patch with a yellow dot, and a black line running from its lower end to middle of vein 2. This species is close to *ignepicta* Hmps., but larger, and the scarlet markings more extended and differently placed.

Expanse 28 mm. Length of forewing 12 mm.

1 ♂ Base Camp, Jan. 1913.

706. *AGROTERA COELATALIS* (Walk.)

*Nistra coelatalis* Walker, *List Lep. Ins. Brit. Mus.*, xvii. p. 488 (1859) (Ceylon).

1 ♂ Base Camp, March 1913.

707. *DESMIA DISCREPANS DISSIMULALIS* subsp. nov.

♂. Differs from *d. discrepans* in the outer white spot on forewing being narrower and produced into a bent flagellum under subcostal vein; it also differs in the outer white spot on hindwing being much rounder, not abruptly straight-edged on the inner side.

5 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

708. *PAGYDA BOTYDALIS* (Snell.)

*Glyphodes botydalis* Snellen, in Veth, *Midden-Sumatra*, p. 69, pl. 5, f. 9 (1880) (Sumatra).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

709. *PAGYDA TRADUCALIS* (Zell.)

*Eudiotis traducalis* Zeller, *Lep. Caffr.*, p. 54 (1852) (Caffraria).

1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

710. *ERCTA GAUDEALIS* sp. nov.

♂. Cream-colour, serrations and underside dark sooty grey; head dark sooty brown; thorax dark sooty brown variegated with pale steel blue; abdomen above dark sooty brown, sides and below buffish whitish grey. *Forewing* sooty brown, darker in costal area and outer  $\frac{1}{3}$ ; costa and basal  $\frac{1}{3}$  strongly covered with pale steel blue scales and spots; postmedian and marginal bands pale steel blue, the latter with a row of black dots; a spot near base, basal half of inner margin and a large irregular submedian patch white, the latter edged outwardly with black and suffused inwardly with brown scales. *Hindwing*, base dark sooty brown; basal  $\frac{1}{2}$  white, outer  $\frac{1}{2}$  dark sooty brown; between the white and the outer dark area a sinuate pale steel blue band, a marginal row of black dots inside pale steel blue spots.

Expanse 22 mm. Length of forewing 9.5 mm.

3 ♂♂ Base Camp, Jan. 1913; 2 ♂♂ Canoe Camp, Dec. 1912; 1 ♂ Utakwa River, sea level, Nov. 1912.

711. *MARASMIA VENILIALIS* (Walk.)

*Asopia venialis* Walk., *List Lep. Ins. Brit. Mus.*, xvii. p. 373 (1859) (Moreton Bay).

4 ♂♂ 4 ♀♀ Base Camp, Nov.—Dec. 1912; 1 ♂ Canoe Camp, Dec. 1912; 2 ♂♂ 2 ♀♀ Utakwa River, 2500–3000 ft., Jan.—Feb. 1913.

712. *MARASMIA CARSTENSZIANA* sp. nov.

♂. Antennae, head and thorax pale cinnamon yellowish wood-brown; abdomen similar, but slightly suffused with sooty black and narrowly ringed with white, tuft and 2 spots on praeanal segment black. *Forewing* greyish buff, basal  $\frac{3}{4}$  of costa sooty black, a cellular stigma, ante- and postmedian transverse lines grey-brown; a clouded sooty band beyond postmedian line, margin grey-brown with buffish central hair-line. *Hindwing* similar.—♀ paler.

Expanse, ♂ 18, ♀ 20 mm. Length of forewing, ♂ 8, ♀ 9 mm.

1 ♂ 3 ♀♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

713. *RHIMPHALEA HERANIALIS* (Walk.)

*Botys heranialis* Walker, *List Lep. Ins. Brit. Mus.*, xviii. p. 714 (1859) (Sarawak).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

714. *SYNGAMIA AMPLIATALIS* (Led.)

*Platamonia ampliatalis* Lederer, *Wien. Ent. Mon.*, vii. 1863, p. 428. pl. 16, f. 6 (Amboina).

1 ♂ Base Camp, March 1913.

715. *Bocchoris adipalis* (Led.)

*Botys adipalis* Lederer, *Wien. Ent. Mon.*, vii. 1863, p. 376 (*abipalis*) and p. 475, pl. 11, f. 16 (Amboina).

1 ♀ Base Camp, Dec. 1912; 3 ♂♂ 3 ♀♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

716. *Bocchoris onychinalis* (Guen.)

*Asopia onychinalis* Guenée, *Delt. et Pyral.*, p. 205, pl. 6, f. 9 (1854) (Coromandel).

1 ♀ Base Camp, Jan. 1913; 1 ♂ Canoe Camp, Dec. 1912.

717. *Pilocrocis insignificalis* sp. nov.

♀. Uniform dirty greyish wood brown with 3 black spots below subcostal vein of forewing.

Expanse 25 mm. Length of forewing 11 mm.

1 ♀ Canoe Camp, Dec. 1912.

718. *Nosophora barbata* Hmps.

*Nosophora barbata* Hampson, *P.Z.S.*, 1898, p. 663, pl. L, f. 2 (Fergusson).

1 ♂ Canoe Camp, Dec. 1912.

719. *Nosophora hypsalis* (Walk.)

*Eidama hypsalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1489 (1865) (Aru).

1 ♀ Canoe Camp, Nov. 1912; 1 ♀ Utakwa River, 3000 ft., Jan. 1913.

720. *Nosophora quadrisignata* Moore

*Nosophora quadrisignata* Moore, *Lep. Ceyl.*, iii. p. 320, pl. 183, f. 6 (1887) (Ceylon).

2 ♀♀ Base Camp, March 1913; 1 ♀ Canoe Camp, Dec. 1912. A good species.

721. *Nosophora fulvalis* Hmps.

*Nosophora fulvalis* Hampson, *P.Z.S.*, 1898, p. 663 (Pulo Laut).

4 ♀♀ Base Camp, Jan.—March 1913; 2 ♀♀ Canoe Camp, Nov.—Dec. 1912.

722. *Caprinia conglobatalis* (Walk.)

*Botys conglobatalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1421 (1865) (Flores).

1 ♂ 4 ♀♀ Base Camp, Nov. 1912—Jan. 1913; 1 ♂ 1 ♀ Canoe Camp, Dec. 1912.

723. *Caprinia diaphanalis* (Walk.)

*Margaronia diaphanalis* Walk., *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1365 (1865) (Aru).

1 ♂ 1 ♀ Canoe Camp, Dec. 1912.

724. *CAPRINIA FELDERI* Led.

*Caprinia felderi* Lederer, *Wien. Ent. Mon.*, vii. p. 478, pl. 13, f. 8 (1863) (Amboina).

1 ♂ Utaqua River, 2500–3000 ft., Dec. 1912.

725. *FILODES XANTHALIS* Hmps.

*Filodes xanthalis* Hampson, *P.Z.S.*, 1898, p. 672, pl. L, f. 10 (Tenimber).

2 ♂♂ 3 ♀♀ Base Camp, Nov. 1912—March 1913; 1 ♀ Canoe Camp, Nov. 1912.

726. *PHRYGANODES BASALTICALIS* (Led.)

*Spargeta basalticalis* Lederer, *Wien. Ent. Mon.*, vii. 1863, p. 407, pl. 14, f. 11 (Amboina).

1 ♂ 2 ♀♀ Base Camp, Jan. 1913.

727. *PHRYGANODES ASSIMILIS* sp. nov.

♂. This is allied to *leucogaster* and *fuscicilia* Hmps. Antennae, head, thorax and abdomen grey-brown, abdominal tuft black. *Forewing* grey-brown, antemedian, median, and postmedian transverse lines darker. *Hindwing* grey-brown, two curved discal lines starting from vein 6 join in a point at vein 1.

Expanse 32 mm. Length of forewing 14 mm.

1 ♂ Canoe Camp, Dec. 1912.

728. *PHRYGANODES GRISEOPALIZANS* sp. nov.

♂. Uniform pale grey. *Wings* with a strong opalescent gloss. A shadowy sinuate transverse postmedian line and a cellular stigma on forewing slightly darker grey. Still fainter antemedian and discal lines on hindwing.

♀. Lighter grey and less opalescent. This species differs from *unitalis* Guen. in its purer grey, less brown colour, and in having the opalescent gloss. The shadowy lines are also differently placed.

Expanse, ♂ 36, ♀ 39 mm. Length of forewing, ♂ 16, ♀ 17.5 mm.

2 ♂♂ Base Camp, Jan. 1913; 1 ♂ 1 ♀ Canoe Camp, Nov.—Dec. 1912.

729. *PHRYGANODES VIOLITINCTA* sp. nov.

♂. Uniform grey-brown. *Forewing* with median darker stigma under subcostal vein and traces of a faint postmedian transverse line. All wings with violet gloss.

Expanse 34 mm. Length of forewing 15 mm.

1 ♂ Base Camp, March 1913.

730. *PHRYGANODES SETIFERA* Hmps.

*Phryganodes setifera* Hampson, *P.Z.S.*, 1898, p. 682 (Fergusson).

1 ♂ Base Camp, Jan. 1913.

## 731. PHRYGANODES EARLALIS (Swinh.)

*Saroscelis earlalis* Swinhoe, *Ann. Mag. N. H.* (7) xvii. p. 290 (1906) (North Borneo).

This species is quite distinct from *nicoalis* Walk., with which Hampson has wrongly united it in the B.M. Collection.

1 ♂ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

## 732. PHRYGANODES PIASULALIS (Walk.)

*Botys piasulalis* Walker, *List Lep. Ins. Brit. Mus.*, xviii. p. 725 (1859) (Madagascar).

1 ♀ Base Camp, Nov.—Dec. 1912.

## 733. PHRYGANODES MARGARITA (Butl.)

*Nosophora margarita* Butler, *Ann. Mag. Nat. Hist.* (5) xx. p. 120 (1887) (Solomons).

1 ♀ Base Camp, March 1913 ; 1 ♀ Canoe Camp, Nov. 1912.

## 734. PHRYGANODES MURINUS sp. nov.

♂ ♀. Uniform mouse grey with a satiny gloss.

Expanse 38 mm. Length of forewing 17 mm.

7 ♂♂ 4 ♀♀ Base Camp, Jan.—March 1913 ; 2 ♀♀ Canoe Camp, Dec. 1912 ; 1 ♂ 2 ♀♀ Utakwa River, 2500–3000 ft., Feb. 1913 (Type Utakwa River).

## 735. DICHOCROCIS XANTHOCYMA Hmps. n.

*Dichocrocis xanthocyma* Hampson, *P.Z.S.*, 1898, p. 689 (Moroka, British New Guinea).

1 ♀ Base Camp, March 1913.

## 736. DICHOCROCIS EVAXALIS (Walk.)

*Botys evaxalis* Walker, *List Lep. Ins. Brit. Mus.*, xix. p. 995 (1859) (N. India).

1 ♀ Canoe Camp, Dec. 1912 ; 2 ♂♂ 1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912—Feb. 1913.

## 737. DICHOCROCIS NIGRILINEALIS (Walk.)

*Botys nigrilinealis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1410 (1865) (Cambodia).

Sir George Hampson has quite wrongly united to this insect Moore's *H. tigrina*, which is a perfectly good and distinct species.

3 ♂♂ 3 ♀♀ Base Camp, March 1913 ; 2 ♂♂ 4 ♀♀ Canoe Camp, Nov.—Dec. 1912.

## 738. NACOLEIA FUSCIFIMBRIALIS Hmps. n.

*Nacoleia fuscifimbrialis* Hampson, *Moths of India*, iv. p. 315 (1896) (Ceylon).

2 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913 ; 1 ♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.



739. *NACOLEIA AURANTHIMACULALIS* sp. nov.

♂♀. Deep yellow; basal  $\frac{3}{5}$  of forewing and body patched and mottled with blackish brown, a cellular stigma black-brown with yellow centre; outer  $\frac{2}{5}$  of forewing with 2 irregular black-brown coalescing transverse bands; margin yellow divided by a dark brown spot; hindwing dark yellow patched and mottled with black-brown.

Expanse 16 mm. Length of forewing 7 mm.

8 ♂♂ 13 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912—Feb. 1913.

740. *NACOLEIA AFFINIS* sp. nov.

♂♀. Dark wood brown variegated with dull yellow spots, patches and streaks; hindwing, basal  $\frac{2}{3}$  yellow with two irregular dark brown bands, outer  $\frac{1}{3}$  dark brown with yellow line and marginal edge; fringe of both wings chequered yellow and brown.

Expanse 18 mm. Length of forewing 7.5 mm.

7 ♂♂ 14 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912—Feb. 1913.

741. *NACOLEIA DISTINCTIFASCIA* sp. nov.

♂. Antennae, head, thorax and abdomen cinnamon hazel. *Forewing* cinnamon hazel washed with dull brown, an oblique antemedian transverse line, a median and a crenulated postmedian dull brown; the median line below costal vein forms the discocellular ringed stigma; beyond postmedian line the forewing is almost entirely suffused with dull brown, the pale ground colour only appearing as a row of marginal dots. *Hindwing* cinnamon hazel with very distinct antemedian and median-transverse bands, the latter strongly crenulated; the outer half of wing as in outer  $\frac{1}{3}$  of forewing.

Expanse 18 mm. Length of forewing 8 mm.

1 ♂ Base Camp, March 1913.

742. *NACOLEIA ASSIMILIS* sp. nov.

♂. Differs from *distinctifascia* in the absence of the antemedian and median lines of forewing, which are replaced by irregular brown cloud-like patches, and in the postmedian line being much more strongly sinuate with an outside border of dirty buff. Hindwing differs in being wood grey, darker on outer  $\frac{1}{3}$ , and only showing indistinct traces of discal bands. Body dark brown.——♀ similar.

Expanse 16 mm. Length of forewing 7 mm.

3 ♂♂ 1 ♀ Utakwa River, 3000 ft., Jan. 1913.

743. *NACOLEIA FUSCALIS* sp. nov.

♂♀. Sooty brown. *Forewing* with darker stigma, basal  $\frac{1}{2}$  with some irregular pale buff markings, an oblique pale buff transverse postmedian line from costa to tornus

and a marginal pale buff hair-line. *Hindwing* slightly paler, with 2 indistinct zigzag pale discal lines.

Expanse 16 mm. Length of forewing 7 mm.

4 ♂♂ 1 ♀ Utakwa River, 3000 ft., Jan. 1913.

744. *NACOLEIA DISTINCTALIS* sp. nov.

♂♀. The sexes are alike except in size. Antennae, head and thorax deep black-brown; abdomen above deep black-brown, a white ring on second and a white spot on penultimate segment. *Forewing* deep black-brown; a large semihyaline buff patch, enclosing 2 short hair-lines and a spot joined to subcostal vein of the ground colour, occupies almost the whole basal  $\frac{2}{3}$  of wing, a large postmedian patch, also enclosing a short dark hair-line, semihyaline buff. *Hindwing*, basal  $\frac{2}{3}$  semihyaline buff crossed by a dark black-brown band and at the anterior upper corner by a similar short hair-line; outer  $\frac{1}{3}$  black-brown.

Expanse, ♂ 14, ♀ 19 mm. Length of forewing, ♂ 6, ♀ 8.5 mm.

2 ♂♂ 1 ♀ Utakwa River, 3000 ft., Jan. 1913.

745. *NACOLEIA WOLLASTONI* sp. nov.

♀. Antennae and head buff; thorax sooty black, anterior  $\frac{1}{2}$  of tegulae buff; abdomen orange-buff, basal and 3 apical segments sooty black, the two penultimate ones with a buff spot. *Forewing* orange-buff, costal area with 3 black comma-marks and slight sooty shading, basal  $\frac{1}{3}$  of wing sooty black, narrowing obliquely into a longitudinal broad subcostal band ending gradually at  $\frac{3}{4}$  the length of wing and enclosing some buff streaks and a ringed stigma; apical  $\frac{1}{4}$  of wing from costa to vein 3 black separated by a black and yellow hair-line from longitudinal band. *Hindwing*, basal half obliquely orange-buff, outer half sooty black enclosing some irregular buff marks.

Expanse 20 mm. Length of forewing 8.5 mm.

1 ♀ Canoe Camp, Dec. 1912.

746. *NACOLEIA SORDIDALIS* sp. nov.

♂. Antennae, head, thorax and abdomen dirty white, more or less washed with brownish grey. *Forewing* dirty white, almost entirely suffused with brown-grey; irregular spots on costa, more or less distinct antemedian and median bands and a submarginal band of coalescent spots brown. *Hindwing* dirty white suffused with brown-grey, with indications of cloudy discal and postdiscal brownish bands.

Expanse 18 mm. Length of forewing 8 mm.

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

747. *NACOLEIA CONFUSALIS* (Warr.)

*Hedylepta confusalis* Warren, *Ann. Mag. Nat. Hist.* (6), xvii. p. 98 (1896) (Japan).

1 ♀ Canoe Camp, Nov. 1912.

748. *BOTYODES BRACHYTORNA* Hmps. n.

*Botyodes brachytorna* Hampson, *Ann. Mag. Nat. Hist.* (8), x. p. 3 (1912) (New Guinea).

1 ♂ Base Camp, Jan. 1913.

749. *BOTYODES ASIALIS* Guen.

*Botyodes asialis* Guenée, *Delt. et Pyral.*, p. 321 (1854) (Bengal ; Nepal).

1 ♂ Base Camp, Jan. 1913.

750. *PRORODES MIMICA* Swinh.

*Prorodes mimica* Swinhoe, *Ann. Mag. Nat. Hist.*, xiv. p. 205 (1894) (N.E. India).

1 ♀ Base Camp, March 1913.

751. *SYLEPTA ACRIDENTALIS* Hmps. n.

*Sylepta acridentalis* Hampson, *Ann. Mag. N. H.* (8), x. p. 10 (1912) (Kapaur).

1 ♂ 2 ♀♀ Base Camp, Dec. 1912—Jan. 1913 ; 1 ♀ Canoe Camp, Nov. 1912 ; 1 ♀ Utakwa River, 3000 ft., Jan. 1913.

752. *SYLEPTA BALTEATA* (Fabr.)

*Phalaena baltcata* Fabricius, *Suppl. Ent. Syst.* p. 457 (1798) (Ind. or.).

1 ♂ Base Camp, Jan. 1913 ; 1 ♀ Canoe Camp, Nov. 1912.

753. *SYLEPTA SABINUSALIS* (Walk.)

*Botys sabinusalis* Walker, *List Lep. Ins. Brit. Mus.*, xvii. p. 708 (1859) (Sarawak).

1 ♀ Base Camp, March 1913.

754. *SYLEPTA DEROGATA* (Fabr.)

*Phalaena derogata* Fabricius, *Syst. Ent.*, p. 641 (1775) (Ind. or.).

1 ♀ Base Camp, March 1913 ; 3 ♂♂ 1 ♀ Canoe Camp, Dec. 1912.

755. *SYLEPTA KLOSSI* sp. nov.

♂. Antennae above basal  $\frac{1}{3}$  and apical  $\frac{1}{3}$  cream buff, middle dark brown, below dark brown ; head and thorax cream buff, inner  $\frac{2}{3}$  of tegulae and central band of patagia black-brown ; abdomen cream buff, basal 2 segments with central black line, 2nd segment with 2 lateral black lines also, 3rd and 4th segments with black transverse band at edge, 5th, 6th, and 7th segments above rufous, the latter with large black spot,

tuft grey-buff. *Forewing* semihyaline opalescent cream buff, a basal and an antemedian oblique band black-brown, a median transverse band black-brown enclosing cream buff stigma, an oblique postmedian black-brown band from costa to vein 5, apex black-brown, from which proceed an oblique postdiscal and a terminal black-brown band which join on inner margin  $\frac{1}{3}$  inwards from tornus. *Hindwing* semihyaline cream opalescent buff with large orange patch at tornus; a spot at base, a median transverse line enclosing buff spot, a postdiscal and a marginal band black-brown.

♀. Smaller, paler, and with forewing not so produced.

Expanse, ♂ 30, ♀ 25 mm. Length of forewing, ♂ 13, ♀ 10.5 mm.

- 1 ♂ 1 ♀ Base Camp, January 1913.

#### 756. *SYLEPTA CRUCIFERA* sp. nov.

♂. Antennae, head and thorax buffy orange, spots at apex of tegulae and at base of patagia umber brown; abdomen orange buff, latero-dorsal patches on segments 4 and 5 and tuft black-brown, the latter with orange-buff marks. *Forewing* orange-buff, a basal band, a convex antemedian band, a cellular stigma, and an oblique double concave band coalescing with the antemedian band above vein 1 forming a cross dark umber brown; a spot between and on veins 3 and 4 and a marginal line from apex to vein 4 also umber brown. *Hindwing* semihyaline buff, margin, fringe and large spot below vein 2 orange buff; a streak in cell, one beyond it, one on abdominal area and two near margin umber brown.

Expanse 30 mm. Length of forewing 13 mm.

1 ♂ Base Camp, Jan. 1913.

#### 757. *SYLEPTA IRREGULARIS* sp. nov.

♂. Antennae, head, thorax and abdomen brownish buff. *Forewing* semihyaline iridescent orange-buff, costa grey-brown, outer half clouded with grey-brown, a convex antemedian line, 2 spots in cell, a spot above vein 1, an irregular band below apex of cell and a zigzag postmedian band grey-brown. *Hindwing* semihyaline buff, becoming more orange-buff towards margin; a cellular stigma, a zigzag discal band and a crenulate marginal line grey-brown.

Expanse 32 mm. Length of forewing 14 mm.

1 ♂ Base Camp, January 1913.

#### 758. *SYLEPTA LEUCODONTIA* Hmps.

*Sylepta leucodontia* Hampson, *P.Z.S.*, 1898, p. 713 (Celebes).

1 ♂ Base Camp, March 1913.

759. *SYLEPTA MICROSEMA* Hampson.

*Sylepta microsema* Hampson, *Journ. Bombay N. H. Soc.*, xxi. p. 1268 (1912) (Ceylon; Singapore; St. Aignan).

2 ♀♀ Base Camp, Nov.—Dec. 1912; 1 ♀ Canoe Camp, Nov. 1912.

760. *SYLEPTA ALBIRIVALIS* Hampson.

*Sylepta albirivalis* Hampson, *Ann. Mag. N. H.* (8), x. p. 4 (1912) (Kapaur).

1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912; 5 ♂♂ 1 ♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

761. *SYLEPTA CONTIGUALIS* (Walk.)

*Botys contigualis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1441 (1865) (Java).

1 ♀ Base Camp, March 1913; 6 ♂♂ 1 ♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

762. *GLYPHODES EURYGANIA* Druce

*Glyphodes eurygania* Druce, *Ann. Mag. N. H.* (7) ix. p. 334 (1902) (New Guinea).

3 ♂♂ Base Camp, Jan. 1913; 3 ♂♂ Canoe Camp, Dec. 1912.

763. *GLYPHODES ACTORIONALIS* Walk.

*Glyphodes actorionalis* Walker, *List Lep. Ins. Brit. Mus.*, xvii. p. 498 (1859) (N. India).

1 ♂ Canoe Camp, Dec. 1912.

764. *GLYPHODES CONCLUSALIS* Walk.

*Glyphodes conclusalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1354 (1865) (India).

1 ♂ 1 ♀ Base Camp, Jan. 1913.

765. *GLYPHODES BICOLOR* (Swains.)

*Botis bicolor* Swainson, *Zool. Illustr.*, ii. pl. 77, f. 2 (1821–2) (America?).

1 ♂ Base Camp, Jan. 1913.

766. *GLYPHODES CONJUNCTALIS* Walk.

*Glyphodes conjunctalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1357 (1865) (Sula).

1 ♀ Base Camp, Jan. 1913.

767. *GLYPHODES DELICIOSA* Butl.

*Glyphodes deliciosa* Butler, *Ann. Mag. Nat. Hist.* (5), xx. p. 118 (1887) (Ahu, Solomons).

1 ♂ Base Camp, Jan. 1913; 1 ♂ Canoe Camp, Dec. 1912.



## 768. GLYPHODES STOLALIS Guen.

*Glyphodes stolalis* Guenée, *Delt. et Pyral.* p. 293, pl. 3, f. 11 (1854) (India).

1 ♂ Canoe Camp, Nov. 1912.

## 769. GLYPHODES PAUCILINEALIS Kenr.

*Glyphodes paucilinealis* Kenrick, *P.Z.S.*, p. 84, pl. 4, fig. 172 (1907) (New Guinea).

1 ♂ Base Camp, Jan. 1913.

## 770. GLYPHODES IRIDESCENS sp. nov.

♂. Antennae pale buff with rufous brown serrations; head and thorax greyish wood-brown; abdomen greyish wood-brown with purple gloss. *Forewing* greyish wood-brown with opalescent reflections; 2 dots in cell and a postmedian line darker. *Hindwing*, basal half semihyaline whitish grey with yellowish lustre, outer half suffused with grey-brown, a discal darker band.

Expanse 32 mm. Length of forewing 14 mm.

1 ♂ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

## 771. GLYPHODES ASSIMILIS sp. nov.

Under the name of *Glyphodes caesalis* Walk. Sir George Hampson has included at least 5 distinct species. This is not astonishing, as the insects are wide-spread and the British Museum series contains only a small number from any given locality, and moreover the pattern of the wings is very much alike in the several species; the present species is the largest, darkest, and most boldly marked of all the forms.

♂ differs from *caesalis* in its much larger size, darker colour, and strongly accentuated markings. On the abdomen are 4 latero-dorsal brown lines instead of 2. On the hindwing there is below the discocellulars a band-like streak along vein 2 which is absent in *caesalis*, and the median band runs to tornus, not joining postmedian; on the forewings all markings are much broader and darker.

Expanse *caesalis* 28 mm. Length of forewing 12 mm.

Expanse *assimilis* 40 mm. Length of forewing 17.5 mm.

1 ♂ Base Camp, Nov.—Dec. 1912.

## 772. GLYPHODES CANTHUSALIS Walk.

*Glyphodes canthusalis* Walker, *List Lep. Ins. Brit. Mus.*, xvii. p. 505 (1859) (Sarawak).

1 ♂ Base Camp, March 1913.

## 773. GLYPHODES TRICOLORALIS Pag.

*Glyphodes tricoloralis* Pagenstecher, *Jahrb. Nass. Ver. Nat.*, 1888, p. 190 (Amboina).

1 ♂ Canoe Camp, Dec. 1912.

## 774. GLYPHODES ATHYSANOTA Hampsn.

*Glyphodes athysanota* Hampson, *Journ. Bombay N. H. Soc.*, xxi. p. 1269 (1912) (Nilgiris; New Guinea).

1 ♀ Utakewa River, 3000 ft., Jan. 1913.

## 775. GLYPHODES CAERULEICEPS Hampsn.

*Glyphodes caeruleiceps* Hampson, *Ann. Mag. N. H.* (8) x. p. 562 (1912) (New Guinea).

1 ♂ Base Camp, Jan. 1913.

## 776. GLYPHODES BRUNNEOMARGINALIS Kenr.

*Glyphodes brunneomarginalis* Kenrick, *P.Z.S.*, p. 84, pl. 4, fig. 176 (1907) (New Guinea).

3 ♂♂ Utakewa River, 3000 ft., Jan. 1913.

## 777. GLYPHODES SURALIS (Led.)

*Chloauges suralis* Lederer, *Wien. Ent. Mon.*, vii. 1863, p. 405, pl. 14, f. 9 (Amboina).

1 ♂ 2 ♀♀ Utakewa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

## 778. GLYPHODES MARINATA (Fab.)

*Phalaena marinata* Fabricius, *Ent. Syst.*, iii. 2, p. 209 (1798) (Ind. or.).

1 ♀ Utakewa River, 2500–3000 ft., Dec. 1912.

## 779. GLYPHODES POMONALIS (Guen.)

*Margarodes pomonalis* Guenée, *Delt. et Pyral.*, p. 309 (1854) (China).

1 ♂ Base Camp, March 1913.

## 780. GLYPHODES PUDICALIS Kenr.

*Glyphodes pudicalis* Kenrick, *P.Z.S.*, p. 84, pl. 4, fig. 171 (1907) (New Guinea).

2 ♂♂ Utakewa River, 3000 ft., Jan. 1913.

## 781. GLYPHODES AGATHALIS (Walk.)

*Botys agathalis* Walker, *List Lep. Ins. Brit. Mus.*, xvii. p. 384 (1859) (Sumatra).

1 ♂ Base Camp, March 1913.

## 782. GLYPHODES SABACUSALIS Walk.

*Glyphodes sabacusalis* Walker, *List Lep. Ins. Brit. Mus.*, xvii. p. 504 (1859) (Sarawak).

1 ♂ Base Camp, Jan. 1913.

## 783. GLYPHODES INDICA Saund.

*Glyphodes indica* Saunders, *Trans. Ent. Soc. Lond.*, 1851, p. 163, pl. 12, ff. 5, 6, 7 (India).

1 ♂ Canoe Camp, Dec. 1912.

## 784. GLYPHODES PFEIFFERAE (Led.)

*Sisyrophora pfeifferae* Lederer, *Wien. Ent. Mon.*, vii. p. 399, pl. 13, f. 13 (1863) (Singapore).

1 ♂ 1 ♀ Base Camp, Jan. 1913.

## 785. PYGOSPILA BIVITTALIS Walk.

*Pygospila bivittalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1365 (1865) (Ceram).

1 ♂ Base Camp, Jan. 1913.

## 786. HEORTIA DOMINALIS Led.

*Heortia dominalis* Lederer, *Wien. Ent. Mon.*, vii. p. 403, pl. 14, f. 6 (1863) (Ternate).

1 ♂ Canoe Camp, Nov. 1912; 1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

## 787. POLYTHLIPTA GLOBULIPEDALIS (Walk.)

*Glyphodes globulipedalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1359 (1865) (New Guinea).

5 ♂♂ 1 ♀ Base Camp, March 1913.

## 788. METRAEA NEBULALIS (Walk.)

*Leucochroma* (?) *nebulalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1353 (1865) (Sula).

1 ♂ 2 ♀♀ Base Camp, March 1913; 1 ♂ 1 ♀ Canoe Camp, Nov.—Dec. 1912.

## 789. MEROCTENA STANTONII Led.

*Meroctena stantoni* Lederer, *Wien. Ent. Mon.* 1863 p. 392, pl. 13, f. 4 (Amboina).

2 ♂♂ Base Camp, Nov. 1912; 11 ♂♂ 3 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912.

## 790. THLIPTOCERAS OCTOGUTTALIS (Feld.)

*Botys octoguttalis* Felder, *Reise Novara*, pl. 135, f. 38 (1874) (Amboina).

1 ♂ Base Camp, Nov. 1912; 1 ♂ Utakwa River, 2500–3000 ft., Dec. 1912.

## 791. ARCHERNIS IGNEALIS (Walk.)

*Botys ignealis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1423 (1865) (Morty).

2 ♂♂ Base Camp, Jan. 1913; 1 ♀ Utakwa River, 3000 ft., Jan. 1913.

## 792. ARCHERNIS EUCOSMA Turner

*Archernis eucosma* Turner, *Tr. Roy. Soc. S. Austr.*, p. 95 (1908) (Townsville).

5 ♂♂ 4 ♀♀ Base Camp, Jan. 1913; 1 ♂ Utakwa River, 2500–3000 ft., Feb. 1913.

## 793. HYALOBATHRA MINEALIS Warr.

*Hyalobathra mincalis* Warren, *Ann. Mag. Nat. Hist.* (6) xvi. p. 477 (1895) (Queensland).

1 ♀ Base Camp, Jan. 1913.

794. *HYALOBATHRA MINIOSALIS* (Guen.)

*Ebulca miniosalis* Guenée, *Delt. et Pyral.*, p. 362 (1854) (hab. ?).

This name has been used by Sir George Hampson to include both *orseisalis* and *euro-psalis* of Walker. This is not quite correct, as *europsalis* is a distinct species occurring alongside of *miniosalis*.

1 ♀ Canoe Camp, Dec. 1912.

795. *CROCIDOPHORA FUSCOCILIALIS* (Snell.)

*Elosita fuscocilialis* Snellen, *Tijdschr. Ent.* xlii. p. 59, pl. 3, fig. 1, 2 (1899) (Java).

1 ♂ Utakwa River, 3000 ft., Jan. 1913.

796. *MARUKA TESTULALIS* (Geyer)

*Crochiphona testulalis* Geyer, in Hübner, *Samml. Exot. Schmett. Zutr.*, 4, p. 12, ff. 629, 630 (1832) (Buenos Aires).

2 ♂♂ 1 ♀ Base Camp, Jan. 1913 ; 1 ♂ 1 ♀ Canoe Camp, Dec. 1912.

797. *TETRIDIA CALETORALIS INTERRUPTA* subsp. nov.

♂ ♀. Differs from *c. vinacealis* in being darker vinaceous in colour and in the transverse bands being interrupted. There are 4 distinct races or local subspecies of this insect all united as synonyms with it, in the British Museum ; they are as follows :

*T. caletoralis caletoralis* Walk., from N.W. India. Yellowish ; bands strongly marked.

*T. caletoralis vinacealis* Moore, from Sikkim and Assam. Vinaceous ; bands less strongly marked.

*T. caletoralis interrupta* Rothsch., from New Guinea. Dark vinaceous ; bands interrupted.

*T. caletoralis murinalis* Swinh., from New Britain. Dark grey ; no transverse bands.

1 ♀ Base Camp, Jan. 1913 ; 17 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

798. *PSARA DILATATIPES* (Walk.)

*Botys dilatatipes* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1419 (1865) (Mysol).

3 ♂♂ Base Camp, Nov.—Dec. 1912 ; 1 ♂ 2 ♀♀ Canoe Camp, Dec. 1912 ; 2 ♂♂ 1 ♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

799. *PSARA LICARSISALIS* (Walk.)

*Botys licarsisalis* Walker, *List Lep. Ins. Brit. Mus.*, xviii. p. 686 (1859) (Sarawak).

1 ♂ 2 ♀♀ Base Camp, Dec. 1912—March 1913.

800. *PSARA PHAEOPTERALIS* (Guen.)

*Botys phaeopteralis* Guenée, *Delt. et Pyral.*, pp. 349, 409 (1854) (S. America).

1 ♂ 22 ♀♀ Base Camp, Dec. 1912—March 1913 ; 1 ♂ 2 ♀♀ Utakwa River, 2500–3000 ft., Dec. 1912—Feb. 1913.

801. *PSARA NIGRIDIOR* sp. nov.

♂. Much blacker and larger than *phaeopteralis* and forewing more produced. Uniform purplish sooty black-grey, a black cellular stigma, and a subbasal, median and post-median band; tuft of abdomen orange.

Expanse 30 mm. Length of forewing 13.5 mm.

1 ♂ 1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

802. *PSARA PLATYCAPUA* (Meyr.)

*Pyrausta platycapua* Meyrick, *Trans. Ent. Soc. Lond.*, 1897, p. 90 (Sangir).

1 ♂ 1 ♀ Base Camp, March 1913; 2 ♂♂ Canoe Camp, Dec. 1912; 2 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

803. *PSARA DESMIOIDES* (Hmps.)

*Pachyzancla desmiioides* Hampson, *P.Z.S.*, 1899, p. 203 (Fergusson Isl.).

3 ♂♂ 2 ♀♀ Utakwa River, 3000 ft., Jan. 1913.

804. *PROOEDEMA INSCISALIS* (Walk.)

*Botys inscissalis* Walker, *List Lep. Ins. Brit. Mus.*, xxxiv. p. 1410 (1865) (Darjeeling).

1 ♂ Canoe Camp, Dec. 1912.

805. *DIASEMIA WOLLASTONI* sp. nov.

♀. Antennae, head, thorax, and abdomen sooty grey-black slightly freckled and variegated with white. *Forewing* sooty grey-black, an oblique subbasal transverse line white, a spot in cell and a larger one below it white; beyond the cell is a curved band of white spots above veins 2 to 7, and just beyond this is a serpentine white transverse line, fringe chequered with white. *Hindwing* sooty grey-black; a large white median band from vein 6 to tornus and just beyond a serpentine white line, fringe chequered with white.

Expanse 26 mm. Length of forewing 11.5 mm.

2 ♀♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

806. *DIASEMIA WOLLASTONI MINOR* subsp. nov.

♂ ♀. Differs from *w. wollastoni* in being smaller and paler.

Expanse 22 mm. Length of forewing 9 mm.

1 ♂ 1 ♀ Carstensz Peak, 5000–6000 ft., Feb.—March 1913.

807. *DIASEMIA RAMBURIALIS* (Dup.)

*Hydrocampa ramburialis* Duponchel, *Lép. Fr.*, viii. p. 343, pl. 233, f. 6 (1831) (Corsica).

1 ♀ Utakwa River, 3000 ft., Jan. 1913.



## 808. NOORDA NIGRIPUNCTALIS Hampsn.

*Noorda nigripunctalis* Hampson, *P.Z.S.*, 1899, p. 222 (Perak).

1 ♂ Base Camp, Jan. 1913.

## 809. NOORDA AFFINIS sp. nov.

♀. Nearest to *ignealis* Hampsn. Head, palpi, and thorax scarlet slightly mixed with yellow; antennae pale brown; abdomen buff with dorsal row of scarlet patches. *Forewing* yellow variegated all over with irregular scarlet spots and patches, 3 or 4 patches on costal area, a patch at end of cell and one below it purple mauve; a postmedian line from costa to vein 3, where it curves round and joins patch at end of cell, also purple mauve; margin and fringe dark mauve, between margin and postmedian line are four dark crimson bands. *Hindwing* buff, outer margin widely dark mauve.

Expanse 22 mm. Length of forewing 9.5 mm.

1 ♀ Utakwa River, 3000 ft., Jan. 1913.

## 810. NOORDA MAGNIFICALIS sp. nov.

♂. Antennae brown; palpi deep chocolate; head and thorax canary yellow; abdomen, basal 2 segments canary yellow, remaining segments wood-brown with narrow white rings, anal tuft buff. *Forewing* canary yellow; costal area broadly steel purple, terminal margin broadly steel purple, much wider from well above vein 2 to inner margin, a steel purple median blotch from below cell to inner margin, fringe brownish buff. *Hindwing* buff, basal  $\frac{2}{3}$  of lower half canary yellow with 2 wide streaks and a narrow terminal edge steel purple, fringe buff.

♀ differs in the abdomen above except 2 basal segments being dark chocolate, in the terminal margin below vein 2 not being expanded, and in costal dark area being much narrower; the dark costal and terminal areas are paler opalescent magenta, not steel purple, and are edged, the former exteriorly, the latter outwardly narrowly and inwardly more widely with black; the median spot is smaller and dull mauve. On the hindwing it differs in having a broad pale rufescent opalescent magenta margin edged inwardly with black.

Expanse, ♂ 23, ♀ 28 mm. Length of forewing, ♂ 10, ♀ 12 mm.

9 ♂♂ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913. (As the whole 9 ♂♂ are badly rubbed I have been obliged to make the description from a ♂ and a ♀ collected by Mr. A. S. Meek: ♂ Mt. Goliath, March 1911; ♀ near Oetakwa River, Dec. 1910.)

There is a ♂ also badly rubbed from Base Camp, March 1913, which appears to be a distinct species, but it is quite indescribable.

## 811. CALAMACHROUS ALBIPUNCTALIS Kenr.

*Calamachrous albipunctalis* Kenrick, *P.Z.S.*, p. 86, pl. 4, fig. 205 (1907) (New Guinea).

1 ♂ Canoe Camp, Dec. 1912.

## 812. CALAMACHROUS AFFINIS sp. nov.

♀. Antennae pale brown ; head, palpi and tegulae rufous buff ; rest of thorax whitish buff ; abdomen, 3 basal segments white with dorsal rufous buff patch ; rest of abdomen above chocolate mauve, white laterally. *Forewing* yellow ; costal area brownish mauve edged with white, the basal  $\frac{1}{4}$  slightly mixed with yellow ; discal  $\frac{3}{5}$ , except cell, dull brownish mauve, cellular stigma dull mauve, a submarginal row of minute rufous dots. *Hindwing* buffy white.

Expanse 28 mm. Length of forewing 12 mm.

1 ♀ Canoe Camp, Dec. 1912.

## 813. PIONEA HAEMATIALIS Hmps. n.

*Pionea haematalis* Hampson, *Ann. Mag. N. H.* (8), xii. p. 16 (1913) (New Guinea).

1 ♂ Base Camp, Jan. 1913.

## 814. PIONEA ABLACTALIS (Walk.)

*Botys ablactalis* Walker, *List Lep. Ins. Brit. Mus.*, xviii. p. 660 (1859) (Ceylon).

1 ♀ Utakwa River, 2500–3000 ft., Feb. 1913.

## 815. PIONEA GRISEOFUSCALIS sp. nov.

♀. Antennae, head, thorax and abdomen brownish wood-grey. *Forewing* chocolate grey freckled and powdered with white ; an antemedian and a postmedian transverse line white ; a marginal row of dots black. *Hindwing* brownish grey.

Expanse 18 mm. Length of forewing 8 mm.

1 ♀ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

## 816. PYRAUSTA PUNCTILINEALIS sp. nov.

♂ ♀. Palpi chocolate brown ; antennae, head and tegulae brown-buff ; rest of thorax golden buff ; abdomen dull buff with paler rings, last 3 segments rufous brown with dorsal white marks. *Forewing* semihyaline golden buff, costal area brown mauve ; a median dot in cell and four discal transverse lines of small spots pale brownish mauve, a terminal line of very minute mauve dots. *Hindwing* semihyaline golden buff ; 3 discal transverse lines of small spots and a marginal row of minute dots pale brownish mauve.

Expanse 30 mm. Length of forewing 13 mm.

1 ♂ Canoe Camp, Dec. 1912 ; 8 ♂♂ 1 ♀ Utakwa River, 2500–3000 ft., Dec. 1912—Jan. 1913.

817. *PYRAUSTA AURANTIALIS* sp. nov.

♂. Antennae, head, thorax and abdomen dull orange, anal tuft buffish brown. *Forewing* tawny orange, 3 discal zigzag transverse lines, the costa, and fringe sooty black. *Hindwing* tawny orange, 2 discal lines and fringe sooty black.

♀ differs in the discal lines being reddish brown.

Expanse 16 mm. Length of forewing 7 mm.

3 ♂♂ 2 ♀♀ Base Camp, Dec. 1912—Jan. 1913; 2 ♂♂ 1 ♀ Canoe Camp, Dec. 1912; 12 ♂♂ 16 ♀♀ Utaqua River, 2500–3000 ft., Dec. 1912—Feb. 1913; 1 ♂ Snow Mts., 4000–6000 ft., Jan.—Feb. 1913.

In addition to the specimens above enumerated there are 30 *Psara* and *Nacoleia* so much rubbed that it is practically impossible to say what they are.

## HEPIALIDAE

Of this family Dr. Wollaston obtained 4 species, all new, one being a subspecies.

818. *PORINA FULIGINOSA* sp. nov.

♀ ♂. Antennae fulvous orange; head and thorax sooty black; abdomen sooty grey. *Forewing* sooty black; a transverse postmedian row of dull grey rings and traces of two similar ones on discocellulars. *Hindwing* fuliginous grey.

Expanse 46 mm. Length of forewing 20 mm.

1 ♀ 1 ♂ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

819. *PORINA POSTFLAVIDA* sp. nov.

♂. Antennae brown; head and thorax blackish chocolate; abdomen buff. *Forewing* blackish chocolate with 4 transverse rows of dull orange fulvous rings. *Hindwing* semihyaline buff, nervures and margins broadly orange.

Expanse 56 mm. Length of forewing 25 mm.

1 ♂ Carstensz Peak, 5000–10,000 ft., Feb.—March 1913.

820. *OENETUS MARGINATUS SATURATION* subsp. nov.

♀. Differs from *marginatus marginatus* Rothsch. above in the much more pronounced dark green network pattern and the broader and more complete postmedian band of chocolate spots on the forewings. On the hindwings it differs by the red being much darker—a deep crimson—and the marginal border much narrower and almost obsolete.

Below it is entirely rufous crimson, *not* greenish rufous, with basal  $\frac{2}{3}$  of forewings dirty crimson.

Expanse 117 mm. Length of forewing 54 mm.

1 ♀ Base Camp, sea level, Utakwa River, Nov.—Dec. 1912.

821. *OENETUS WOLLASTONI* sp. nov.

Next to *mirabilis* Rothsch. this is undoubtedly the grandest species of the genus, and is only exceeded in size by that species. Its position in the genus is between *virescens* of New Zealand and *mirabilis* of N. Queensland.

♀. Head black; thorax dull apple green; abdomen, first segment with long rough verditer blue hair, reaching on to base of wings; rest dull olivaceous apple green. *Forewing* apple green completely covered with a network of diamond-shaped chocolate patches; in the apple green interspaces are white satiny Xs. *Hindwing*, basal  $\frac{1}{3}$  rusty earth brown, outer  $\frac{2}{3}$  earth brown irrorated with dull apple-green, here and there showing indications of whitish Xs. Underside like outer  $\frac{2}{3}$  of hindwing.

Expanse 155 mm. Length of forewing 73 mm.

1 ♀ Utakwa River, Feb. 1913.

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## APPENDIX

(See p. 1.)

*The following eight species were discovered on the first expedition. The types are in the British Museum.*

### HYPENINAE

#### MAGULOBA WOLLASTONI sp. nov.

♀. Wholly lavender grey tinged with greyish brown. *Forewing* with 3 indistinct double transverse lines; reniform stigma and submarginal line dull brown. *Hindwing* with 1 submarginal and 2 discal lines of black dots; postdiscal band rufous.

1 ♀ Mimika River, Aug. 1910.

#### MAGULOBA INCONSPICUA sp. nov.

♂. Head and thorax brown; abdomen dark grey. *Forewing* mummy brown, reniform stigma and postdiscal line of spots whitish. *Hindwing* yellowish grey.

1 ♂ Mimika River, Aug. 1910.

### PHYCITINAE

#### EPISCHINIA WOLLASTONI sp. nov.

♂♀. Head and thorax dark mouse grey; abdomen paler, anal tuft buff. *Forewing* dark mouse grey with darker cloud-lines. *Hindwing* dirty greyish white.

4 ♂♂ 1 ♀ Wataikwa River, Aug.—Oct. 1910; 2 ♀♀ Mimika River, Oct. 1910; 1 ♀ Iwaka River, Feb. 1911.

### HYDROCAMPINAE

#### NYMPHULA TERRANEA sp. nov.

♀. Head and thorax grey powdered with earth brown; abdomen paler. *Forewing* pale wood brown; antemedian and median bands as well as a submarginal bar curving into median band whitish. *Hindwing*, basal  $\frac{2}{3}$  dirty white, outer  $\frac{1}{3}$  pale greyish brown.

1 ♀ Mimika River, July 1910.

#### AULACODES SIMILIS sp. nov.

♀. Nearest to *brunnealis*. Differs from that species in the ochre bar at base of forewing, in the pale mark along inner margin reaching only half way, and being buff, not white, and in the hindwing being entirely orange-buff. There are 4 spots on hindwing.

1 ♀ Mimika River, July 1910.



## AULACODES RUFOCASTANEA sp. nov.

♂. Antennae, head and thorax deep brown; abdomen slightly paler. *Forewing* rufous chestnut; cell, basal  $\frac{1}{3}$  of costa, spot beyond lower discocellular, and streak above inner margin sooty brown-grey; a pale grey streak in the cell and a silver bar beyond disc from costa to vein 3, a silver subterminal line. *Hindwing*, base and outer  $\frac{2}{5}$  rufous chestnut, sub-basal  $\frac{3}{5}$  sooty brown-grey; a subterminal row of black dots and a terminal silver line.

3 ♂♂ Mimika River, July 1910.

## ERISTENA GRISEALIS sp. nov.

♂. Frons whitish; rest of head and thorax brownish wood grey; abdomen paler. *Forewing* yellowish grey, fringe and costa grey-brown, an antemedian bar and an angulated postmedian bar brown. *Hindwing* whitish grey, fringe brown-grey.

1 ♂ Wataikwa River, Aug. 1910.

## PYRAUSTINAE

## NOORDA PURPUREIPLAGIALIS sp. nov.

♀. Head yellow; thorax and abdomen yellow blotched with reddish purple. *Forewing* yellow; costa, stigma, 2 large blotches in outer  $\frac{1}{3}$  of wing and blotch on inner margin reddish purple. *Hindwing* yellow; discal wedge and marginal splash reddish purple.

1 ♀ Mimika River, Aug. 1910.

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EXPLANATION OF PLATE I.

[illegible]



EXPLANATION OF PLATE II.

[illegible]



